



L. P. HASKELL, D.D.S.

ITEMS OF INTEREST.

VOL. XIV.

PHILADELPHIA, NOVEMBER, 1892.

No. 11.

Thoughts from the Profession.

THE SOUTHERN DENTAL ASSOCIATION.

[Reported for the ITEMS OF INTEREST by Mrs. J. M. Walker.]

Dr. S. W. Foster (Decatur, Ala.,) read a paper on "The Care of Children's Teeth." He considers it gross neglect on the part of dentists to fail to disseminate among parents a knowledge of the pathological changes accompanying dentition and the therapeutical and surgical care necessary. And yet we have daily presented in our offices children whose mouths are filled with decayed teeth, chronic abscesses, suppurating sinuses and vitiated secretions, seething pits of filth, generating bacteria and disease enough to break down the most robust constitutions. To prevent this sad condition we must have the perfect co-operation of parents. Children must not be frightened by tales of torture endured at the hands of the dentist, but must be taught to look on him as a friend working for their best interests. They must be given time and consideration, and dealt with by persuasion, gentleness, and yet firmness. The people must be educated, and parents made to realize their duty to their children on this subject. In the public schools the children should be taught the pathological as well as the physiological changes to which the teeth are subjected. Parents must be taught the value of free exercise, fresh air, sunshine and healthful food, as well as the necessity of scrupulous cleanliness of the whole body, including the oral cavity. When a child is brought to the dentist the entire mouth must be put in a sanitary condition, all stains on the teeth should be removed, and much benefit is derived from the application of pure wood creosote. The

deciduous should be filled with some plastic filling material which will retain them in the arches till nature removes them by the absorption of the roots, bearing in mind and impressing on parents the fact that the deciduous teeth were designed to fulfil the same mission for the child as the permanent teeth for the adult.

Dr. L. P. Sharpe (Knoxville, Tenn.,) read a paper entitled "A Plea for Nitrous Oxide in Cardiac Weakness." He dwelt on the necessity of protection from shock incident to sudden pain or violent excitement in the case of patients suffering from any form of heart disease, and the great benefits derived from the administration of nitrous oxide gas in such cases, the danger, if any, being far from commensurate with the benefits derived.

In the discussion of the general subject of pathology and therapeutics, the benefits derived from the use of nitrate of silver in arresting caries, especially in the teeth of children, and in sensitive cavities near the gum margin, was testified to by several members. It was claimed that the tubuli are filled with silver, the nitric acid being taken up by the water of the tooth.

Dr. B. H. Catching (Atlanta) spoke against the practice of applying drugs—especially carbolic acid—on bibulous paper, over a nearly exposed pulp, sealing it in with a permanent filling, as having most disastrous results, either the death of the pulp or a weary struggle for existence.

Dr. John Storey (Dallas, Tex.,) read a paper on the subject of the "Dental Chautauqua, or Proposed Permanent Home for the Southern Dental Association." He thought that instead of locating the home in some remote mountain summit or seashore resort, which would be visited only once a year during the annual meeting, it should be located in some large central metropolis, and take the form of post-graduate college, or dental university and museum, with an endowment providing for a permanent faculty embracing the highest talent in the profession.

A paper from Dr. Ottofy (Chicago), entitled "Post-Graduate Study," was read. This paper briefly outlines the system of the Dental Chautauqua Classes for reading and home study now being instituted.

Under the head of Operative Dentistry, a paper from Dr. J. H. Allen was read, on "Causes of Failure in Gold Fillings." The first cause mentioned was failure to put the tooth into its normal and correct position as regards adjoining teeth and the interdental gum and alveoli.

Examine malleting—powdering the tooth under the gold and resulting in recurrent decay—and overhanging fillings under the

gum margin constitute other causes of failure mentioned by Dr. Allen.

Dr. Chisholm (Tuscaloosa) read a paper on the difficulties encountered in anchoring gold fillings in teeth which are elongated and loosened in their sockets, and the necessity of affording solid support for such teeth, under the blows of the mallet, either by clamping the tooth to its neighbors, or by supporting it by the handle of a heavy instrument if it stands alone.

Dr. Francis Peabody (Louisville, Ky.,) read a paper entitled "The Application of Vapor under Pressure, for Diseased Tissue." The instrument, or appliance, described by Dr. Peabody, and used by him in his clinics, is the invention of Dr. Blair, of Louisville, Ky., and consists of a small metallic cylinder, through which passes a tube connected at one end with an ordinary syringe point, and having at the other end a rubber tube with a syringe bulb. The cylinder being partly filled with coarse crystals of non-agglutinated iodoform, is heated over an alcohol lamp until the iodoform is fused. The syringe point being placed in the root canal or pulp chamber of a dead tooth, the rubber bulb being compressed, the iodoform vapor is forced into the tooth, permeating every portion of it, even filling the tubuli with a precipitate of iodoform, making a solid, insoluble filling. The whole tract of the canal and contents are thoroughly dessicated—septic matter absolutely destroyed. The vapor passes through the tubuli, and the opical foramen subdues any inflammation or irritation which may exist in the peridental membrane. This mode of treatment is of great value in the treatment of blind abscess, and as a capping for exposed pulps.

A paper sent by Dr. Theo. F. Chupein (Philadelphia) was next read. The paper, which was without formal title, embodied a number of practical points in operative dentistry. A method of forcing the gum away to allow of the application of the rubber for cavities of decay extending far under the gum margin. This consists in packing gutta-percha between the teeth, followed by winding gilling twine or ligature silk two or three times around the tooth, pushing it well up on the neck of the tooth. After a day or two the gum will be found well forced away.

Gutta-percha as filling material when cavities cannot be kept dry, may be made to adhere even to the sides of a wet cavity by moistening it with a film of cajeput oil. The surface of a broken gold filling may be annealed in the mouth by filling the glass cylinders of a drop-tube with wicking, allowing a fibre to project from the point. Moisten the wick with alcohol by pressure on the rubber bulb, and you will be able to produce a minute flame by means

of which the roughened surface may be dried with little discomfort to the patient.

The next paper was from Dr. T. H. Parramore (Hampton, Va.,) on the "Use of Sterilized Sponge in Pulp Capping." At the meeting of the Association at Old Point Comfort in 1887, Dr. Parramore read a paper on this subject, which was then but little more than a theory, his experiments not having had the test of time. The present paper gives the very gratifying results of six years' test of capping exposed pulps with sterilized sponge, which serves as a framework to hold in place osteo-dentine, thrown out by the pulp as a protection. In one hundred and fifty cases which Dr. Parramore has been able to watch closely, he has but twenty-three failures to report. For sterilizing sponge, cavity, instruments, fingers, etc., he uses the following preparation: 1 dram each hydrochloride acid and bichloride of mercury to 1 oz. alcohol. Ten drops to 1 oz. water gives the $\frac{1}{500}$ per cent. solution used.

Dr. William H. Cooke (Denton, Texas,) sent a brief paper, giving his method of making combination fillings of oxyphosphate and amalgam. The cavity being properly prepared, is filled one-third full with oxyphosphate of the consistency of putty. Into this, while still plastic, amalgam in small pieces is introduced and burnished in. Dr. Cooke claims that by this method much frail enamel margin may be preserved, perfect contact with the walls of the cavity secured, and the natural color of the tooth retained.

Dr L. G. Nael (Nashville, Tenn.,) exhibited and explained the merits of a variety of forms of apparatus for the administration of various anesthetics.

At the last session a number of papers were read by title, and ordered published in the transactions of the Association.

The subject of methods of conducting clinics was discussed at some length, and a clinic committee of three members, to serve one, two, and three years, was appointed.

The Committee on Necrology reported memorial resolutions in honor of Dr. John Allen, of New York; Dr. C. A. Kingsbury, of Philadelphia, and Dr. William Deason, of Mobile.

Dr. E. C. Kirk, of Philadelphia, addressed the Association on the importance of systematizing work, especially in the matter of papers to be read on the subject, and outlined the plan now being agitated by the American Dental Association.

After passing the customary votes of thanks, etc., the Association adjourned, to meet in Chicago in 1893, the date to be fixed by the Executive Committee.

LETTER FROM NEW YORK.

Dr. E. Parmly Brown's hospitality is known to all who have had the good fortune to share it. He was the only dentist who gave royal dinner parties during the session of the American Dental Association in New York in 1883. The lack of hospitality in New York at that time was much commented on, though this had not been noticed at other times.

Dr. Brown has secured a lease for three years in the most expensive residence in this country, in the noted \$8,000,000 Navarro Spanish apartment house. He has occupied "The Madrid," since August 1st. The doctor's front yard is the entire Central Park. This is a leader for New York.

Dr. Jarvis, of Brooklyn, has the most attractive residence in Brooklyn and the largest practice. For hospitality, no one excels Dr. Mirrick. Dr. Brockway has the most interestingly arranged office. Dr. Hill, the social man, the finest bric-a-brac and paintings. Dr. Stockton, the fluent orator of New Jersey, gives a good dinner, and pilots one into the dining room as does the exuberant Watkins, of Montclair, who secured a decided headrest at Niagara.

The Northern New Jersey Dental Society beats all for its excellent menu at its bi-monthly meetings—\$1.00 per head.

To come back to New York City, none eclipses the Odontological and the First District Dental Societies for fine banquets.

Financial Shepherd, of the "Hub," leads the East for elegance in office apartments, situated in the most attractive part of the city, and knows how to do mine host. We drop a notice to the ITEMS OF INTEREST as a side attraction worthy of the notice of the coming visitors associated with this *fact*, which we have just learned from good authority, which doubtless will surprise many that it has the *largest* circulation of any dental journal. How will be "*that*" of the profession when they read this news? All taste for the eye and inner man supplied, to say nothing of "dental pap" in process of preparation.

W. W. W. is turning North America upside down for everything in line of interest for the coming Columbian Dental Congress. Not satisfied, he will cross to Europe and will scour for all that can be gotten over there for '93, and things don't stop here. Note the editorial of the last *Chicago Dental Review*. "Entertainment for all those invited that *have* the *official* label on them." Good! We know what Chicago did for the American Dental Association in '63. Dr. Allport, the dental savant of the West, led them in hospitality, but now he has begotten ambitious rivals around him to

vie with him. We, doctor, say your enviable repute for excellence shows that such things are catching, and Chicago has occasion for pride in her many smart practitioners. We said, in a late letter, that New York and Brooklyn had never shown much interest in the meetings of the American Dental Association. We say, good for the West; she does. Chicago outdid New York in numbers of delegates at its last meeting, over and above those of the entire state. We predict that we will see a change for energetic purposes that we have not dreamed of (just here note the editorial of Prof. Turner on the Niagara meeting), and we, of this section, will have to follow on or get left.

We have to chronicle a sad, very sad, event. Dr. Albert Kimball, of our city, took his life on the 18th of August by severing a jugular vein. He had broken down by overdoing his nervous system, which resulted in cerebral disorder. He was the author of *The Dentist Himself*, a journal published entirely by himself the early part of the year, but only one number ever appeared. Ambition often leads too many beyond their strength. We think, if we desire ambition (why not?), it is only the safest which has the least of *self* in it. We are not our own. Every one should know, and may know, wherein his strength lies. One thing is certain, it does not lie in ourselves.*

We said, in discussing Dr. Ottolengui's late paper on the code of ethics published in the *Cosmos*, and reprinted in the August number of that smart journal, *The Western Dental Journal*, that we had arrived at the age of sixty-one years, and, for one, felt like *beginning* to do what we felt to be right. Dr. Bogue, looking intently into our face, clapped his hands seemingly in approval, and showed one of his peculiar smiles. We hope he got the inspiration of our thought. Others heard our further remarks and we hoped for them also, but some have not the basis of hope. Do they know the sacredness of a legitimate ambition?

New York has had an experience of, what is termed in politics, "bossism." We are reported to have the same generating in dental matters. Politics, which have their nesting place on board the yacht *Fra Diavolo*, whose owner is the man who took the life of a noted railroad magnate, and got rich in bonds and stocks while working out his sentence in State prison, are not the safeguard of the noble Empire State. It would not take a very wise man to predict what would come of politics nurtured in such associations.

*We received a note from Dr. Kimball recently, saying he was in despair of ever being of much good to the world, etc. We feared this mood, and appreciating his experience as a dentist, and his versatility and usefulness as a writer, we offered him compensation for a series of articles. We were too late, though he acknowledged our friendly letter.—Ed. ITEMS

Already bossism in New York has a written history which has been made apparent in our present campaign. Now, change the scene of action to dental politics. It behooves the band of wards of our profession, to whom the possibilities of a humane calling are entrusted, to guard well their trust *against* those who are seeking to reproduce a similar bossism by questionable means. Can we afford to grow in any atmosphere but a truly professional one? is a question in the mouths of many good men. Bossism is being generated by men who have the big head below the belt, and who go about telling men freely that they will succeed in using other men for their purposes by means which are too vile and vulgar to be printed. By this means they claim they will secure the good will of their enemies. I could detail many facts which are being freely discussed in regard to these men and their unholy associations.

Many are saying, Is not there cause for some anxiety? Would it not be far more worthy if we were to engage with our energies in emulating the example of Atkinson, Heitzman, and others, in giving a contribution to science which could be crystallized in salvatory service?

We have received calls from Dr. — —, of Atlanta Dental College—a clear headed practitioner; Dr. Rollo Knop, of New Orleans—all remember his jewel-case of “Golden Crowns” that gave quick repute; bright and very genial Dr. Hershfield, of Paris, France—he is an inborn gentleman with a bright American wife; has taken home Dr. C. W. Richmond’s teachings of “Crown- and Bridge-work;” he proved an apt student. Dr. Willie Morrison, of St. Louis, whom we are always pleased to meet, coming full of interesting “thots.” To date last, not least, Dr. Bonwill, of Philadelphia—Benj. Franklin, No. 2. Dr. Atkinson told us, only a few days before his demise, that he was the ablest mathematician in our calling. When he publishes his work—now nearly ready for the press—to *prove* that the human jaw is an equilateral triangle, then tell us if figures lie. Such a display of geometrical figures has not been ever spread on our pages of literature. Adding his late invention of a dental engine that lays aside all future products of his fertile brain, we can only hint now, what we learned by a late visit to his hospitable home: readers of the ITEMS, don’t miss a stop with him while visiting Philadelphia.

—George A. Mills, New York City.

TENDENCY TO NECROSIS exists at all times of life, but especially in early youth, when it is most destructive and less amenable to treatment.

PULP PROTECTION BY CAVITY LINING.

In teeth where there is the slightest chance for the pulp to become injured by thermal influences, the safe course is best. Too much care cannot be given to the protection of the pulp. We must always bear in mind the larger proportional size of the pulp in early life, the possibility of its occupying an abnormal position, the chances of there being a crack or fissure extending to it, and of a point of it coming nearly to the surface.

The difference between sensitive dentine and tenderness of the pulp, must also be diagnosed. Sensitive dentine responds when excavating over a considerable portion of the cavity walls, does not respond to simple pressure; while, when in near proximity to the pulp, it responds quite as readily to pressure as to the cutting instrument, and is confined so completely to a single point, that the danger is at once suggested to the operator.

In deep-seated cavities, the necessity of caution becomes greater, and the danger of intruding on pulp territory increases, and, unless carefully protected, thermal changes may prove a disturbing influence, which will give rise to more serious trouble.

For the protection of the pulp against these influences, something should be used with as little conductivity as the case will admit. Scores of different materials have been in use; among them, varnish and the various zinc plastics, oxyphosphate, oxysulphate, and oxychloride; with me, varnish is the most useful. I use the sandarac gum, dissolved in alcohol and quite thin. The effect of varnish lining is to leave on the cavity walls a thin, semi-opaque, whitish film, which is non-conducting, non-irritating, insoluble, and more in harmony with dentine than any metallic substance, and can be used in any cavity, however shallow, because of the small amount of space it occupies. The operation of varnishing is very simple; having the rubber-dam adjusted and the cavity properly dried, a small pellet of cotton is dipped in the varnish, which is thus conveyed to the cavity touching the bottom and walls. Five or ten minutes should be allowed for hardening, which can be hastened by hot air.

In proximal cavities of the posterior teeth, especially those extending below the gum margin, we sometimes find ourselves in close proximity to the pulp, with barely depth enough for anchorage to the filling. We find nothing else will take the place of varnish in these for a lining. Varnish will prevent filling material showing through thin enamel walls, which might be unsightly without it.

Oxyphosphate is an excellent liner ; it is adhesive, does not shrink, and is indicated where the walls of the tooth need strengthening. In deep seated cavities, where undercuts exist, if the enamel is strong, it need not be cut away, for when hard cement is carefully packed in its place, it forms a support when hard, almost equivalent to dentine. A cavity cut in to it to a depth a little greater than enamel, reduces the final filling with gold to an operation of the simplest character, as this cavity has a hard, firm base of cement and a boundary of cement and tooth substance, or of the latter alone. When using an oxyphosphate in deep-seated cavities, we must not forget the necessity of protecting the pulp against the effect of phosphoric acid. This can be done by varnishing the bottom, or by using a little oxysulphate, or a pad of the zinc and oil of cloves.

—G. F. Cheney, *Ohio Journal*.

TREATING ABSCESSED TEETH.

Three years ago, after considerable experimenting with different remedial agents, we adopted a new system of treatment, the sheet anchor of which is listerine.

Since that time, so great has been our success that all fear of any evil consequences has passed away in the treatment of abscessed teeth, under any condition, save where the tooth has not sufficient alveolus to support it.

To-day we have greater confidence in it than ever, as it has proven such a haven of rest from the many evils of the old system.

Our system is as follows : After opening the canal in the tooth to be treated, and thoroughly cleansing it, and removing all dead matter, we prescribe the following, to be applied by the patient :

Listerine, pure (St. Louis Ph'l Co)..... ʒiij.

Sig. Saturate a pledget of cotton, and plug it loosely in the pulp chamber, and, with another pledget rolled rather hard, force this in on the first pledget, and plug tight. Do this *night* and *morning* for two or three weeks, and let no food enter the cavity at any time.

If any swelling or soreness should follow within twenty-four hours, instruct patient to pack cotton loosely for two or three days.

The object of tightly plugging the cavity is to force the liquid through the canal to the seat of the disease. We try to impress on the mind of the patient that successful treatment is not with us alone, but more on the part of the faithful carrying out of our instructions, and keeping the tooth thoroughly medicated ; otherwise all our labor will come to nought.

If the abscess is an acute one, before prescribing the listerine, we give the following:

R.—Tinct. calendula,

Aquaaa ʒij.

M.—Sig. Bathe the gums freely and frequently.

After all soreness and swelling has subsided, the patient is given the listerine treatment.

One of the greatest advantages of listerine is that it is cleanly and not poisonous, and can be used almost as freely as water.

When patient returns for final treatment, before proceeding to fill, we pass a nerve broach into the canal, but not through it, for fear of wounding the parts beyond the apex and creating a blood-clot. If, on the withdrawal of the broach, we find a strong odor of listerine, we proceed to fill; but if we find the *slightest* trace of foulness, we dismiss the patient to continue treatment for another week, with the hint that the instructions given have not been faithfully performed.

Before filling the canals, we use the following:

R.—Iodoformum pulv. ʒss.

Creosote lignum. add q. s. ft. paste.

Sig. Place a small quantity of the paste in the opening of the canal, following it up with stiff oxyphosphate, and filling the canals clear to the apex of the tooth.

In all cases, after filling and finishing the operation, paint the gums surrounding the tooth with tinct. iodine.

—Wm. A. Mills, *Amer. Journal*.

SHAPING PROXIMAL CAVITIES IN INCISORS.

Little need be said of simple cavities in proximal surfaces of superior incisors. Their demands are simple, though imperative. The necessities are, sufficient room and a preparation leaving strong walls with little undercut. I apprehend that the trouble met in this class of cavities arises from disregarding the first demand, and attempting to fill the cavity around a corner, with cohesive gold alone.

It is of the large proximal cavities, involving the cutting edge, of which I wish to speak. My reading of this class of cavities (which has not, by any means, been exhaustive) has sometimes made me wonder at the vague manner of treating the subject. Dr. Louis Jack's article in the second volume of the *American System of Dentistry*, on "The Stopping Process with Gold and the Related Procedures," says of "Proximate Cavities of Front Teeth extending to Cutting Edge, the Labial Wall being Frail:"

"Sometimes in this class of cases so much destruction of tissue has occurred as to extend the carious action to the cutting edge. The treatment of the case then becomes very tedious, difficult and hazardous. When the pulps remain alive, the retention depends on the depth of the cutting at the stronger and thicker parts of the tooth, at the base of the cavity. No specific rules can be laid down to meet the varying contingencies which arise with each case. It may be stated, however, that nothing short of a complete restoration of form in these cases is acceptable; and when the amount of gold displayed becomes extreme, it is often a question whether some form of substitution be not better than a laborious restoration, which is peculiarly liable to destruction through use, or the accidents to which the front teeth are subject."

We do not oppose the above quotation, but we want to know more about the detail of it. We need definite ideas of getting the greatest amount of retentive form, with the least irritation of the pulp and weakening of the crown, so that when the "contingencies that arise with each case" are not contra-indicative, we may proceed with system. Differing methods meet the contingencies.

Suppose the cavity is entered from the palatal aspect, unsupported enamel being cut from that surface. As much labial wall is left as the quality of the tooth will admit. Carious parts being removed, the walls are smoothed, being beveled outward. The cervical wall is made a right angle to the cavity, and is left solid, not being used for undercut. The finished gold plug following the outward bevel of the enamel edge of this wall is a source of strength at this vulnerable point, which, when used for a groove undercut, presents a formation most conducive to a future patch requirement.

The labio-cervical portion admits an undercut that does not weaken the cervical wall, and will not so nearly approach the pulp as would a groove formed in the cervical wall. Commencing, then, from this, the main undercut formed well up under the cervical portion of the labial wall, a groove is made to extend toward, but not to, the cutting edge, following the labial wall and cut in the dentine. At a safe distance from the pulp, this groove crosses the cavity; or by use of a pit undercut, which extends in the direction of the pulp rather than towards the cutting edge, it connects with a groove which follows the palatal to the cervical wall, where it ends in a retaining point, or larger undercut at the junction of the palatal and cervical walls as indicated. Often a little groove is practicable between the basilar ridge and the pit between the pulp and cutting edge, but is usually a well defined one over the basilar ridge.

The filling is commenced in the labio-cervical undercut. Direct access is had to all parts of the cavity from the palatal aspect, which admits the use of any form of plugger, malleting, or hand pressure.

—W. W. Coon, in *Dental Practitioner*.

ETHICS AND THE DENTAL PROFESSION.

The code of ethics, in its relation to the present needs of the dental profession, is a set of arbitrary rules, enacted by men whom we all respect, but who adopted them in the spirit of imitation. Being anxious to be considered medical men, they aped that profession in the formation of societies and in the adoption of written rules of conduct.

The dental code is a modified copy of the medical code, and the medical code is almost substantially a copy of a code of ethics prepared at the end of the last century by a Dr. Percival, of Manchester, England, and intended to serve as a guide for his son, who was about to begin the practice of medicine in a distant city, away from parental jurisdiction. That we, the practitioners of a century later, should feel that we are still in the position of the worthy Dr. Percival's son, is belittling to our professed dignity, and an unworthy admission that, having no father to guide our faltering steps, we must lean on written rules lest we totter into the mire of ungentlemanliness.

To descend to personalities for a brief moment, I will state that after practicing for fifteen years, I dare to assert that I have never in any way broken a rule of the code, either in the letter or the spirit. Yet I never read the code of ethics till about a year ago, when I was named as one of a committee to revise the constitution and by-laws of one of our local societies. If these two statements be (and they are) true, then it follows that the code of ethics, as a written code, has had nothing to do with forming or controlling my professional conduct. This will always be the case. A professional man is a professional man, not because of forced obedience to special law, but by inherited instinct. *Per contra*, no amount of written law will convert a blackguard into a gentleman, nor make a charlatan a professional man. What it will do, however, and what it is doing all over this country, is, by specifying a mode of punishment for slight wrongs, it enables the charlatan, who says he is professional, to grind down the poorer man who is his neighbor, and who is attempting to rise. It enables this ass, who hides his true form in the skin of a lion, to terrorize his brother dentists, so that while they scrupulously follow the code, he is surreptitiously lining his pockets. He builds up his practice by methods just without the pale of the code and its punishment, and to which his neighbor would not descend, code or no code. To be more explicit, I must enter the dread domain of advertising. That is the great bugaboo of the code men. Yet the code is so elasti-

cally drawn that it will exclude what might be considered legitimate and honorable advertisement, while it permits, or at least cannot punish, advertising which is far more profitable to the man, though unworthy the gentleman.

In my position as Chairman of the Executive Committee of this Society, my attention has been drawn by many men both in and out of the Society, and in and out of the state, to so-called infringements of the code, with the expressed wish that I should give an official opinion on them. For example, I have been asked whether it is not advertising for a man to write an essay, and then circulate its reprints.

From the dentist's standpoint there is little advertisement in sending reprints to fellow-dentists, for dentists do not send their patients to other dentists, at least not to men in their own city, except for free consultation. The distribution of pamphlets among his own patients may be. Yet, if so, then the code is plainly militating against one set of men to the advantage of another. If Dr. A can do a thing thoroughly well, and Dr. B can do it not only as well, but also has the ability to write a lucid, comprehensive description of his work, he is a more useful man than Dr. A. Then if Dr. B does write a description of his work, and publishes it, does he not place his professional brethren under obligation to him, since he suggests to them, and enables them to do, a new and useful operation? Should those beneficiaries be able to appropriate his brains and labor to their own uses, and then, hiding behind the code of ethics, have the right to prevent Dr. B from reaping that reward from the public which he will never obtain from the dentist, except from those who, like himself, are constantly giving to the multitude and receiving nothing in return? A man has the distinct right to manage and control his practice to his own best advantage.

The code of ethics, then, strictly construed, would term the distribution of reprints as objectionable advertising, and therefore contrary to professional spirit. Thus the student is tyrannized over, and remains a true professional man, but a poor one. Why? Because he devotes his nights to study.

How does the code control the other man, who sells his textbooks after procuring his degree? I will give you a sketch of such a person. As soon as he gets his office started, he goes to live in a large boarding-house. He works the whole house into his ledger accounts, and then he moves to another boarding-house. Has he broken any specific rule of the code? Not yet—or at least you could not convict him of it. Soon he joins the church, and perhaps the choir: he becomes an active member of the Young Peo-

ple's Society. He fills the preacher's teeth and sends him a receipted bill, and in exchange the preacher tells everybody in the church. Is there anything in the code against joining a church and doing gratis work for the clergy? I think not. He starts several entertainments for the benefit of the church debt. It is mainly through his energy that they are successful. He also heads as many subscriptions as possible. In fact, he makes himself popular in that church. Meanwhile he joins a man's club. Here he spends his off nights. He becomes an adept at billiards, and he plays a good game of ninepins. He wins a few tournaments, and stands treat for the crowd. He gets on the executive committee, and his great executive ability shows him the way to get most of the club men into his office.

Then he joins the Masons. He associates himself with different lodges and orders. Then perhaps he prints his card, or a few of them, for special circulation, something like the one which I will pass around. Observe that there is a conspicuous Masonic symbol in one corner, while we are told to what lodges he belongs. This of course is a bid for patronage through Masonic fraternity. I have erased the name of the dentist from this card. I did that because, however I may object to the code, I wish to be a professional man myself. To return to our ethical dentist. One day one of the elders of his church comes in and shows him a reprint bearing the name of a man who he knows is a skillful and reputable dentist. The pamphlet, too, is one of merit; the writer describes therein a useful operation original with himself, and beyond the ability of our friend, who has done no studying since he left college. What does he do? His commercial instinct comes to the front, of course. He at once denounces the writer of the pamphlet as a charlatan. He says to his patient, "Why, my dear sir, the thing shows on its face that the man is a quack. Don't you see it is an advertising dodge? Don't you know that no reputable professional man would stoop to this sort of thing?" He has the confidence of his hearer, and of course wins him over. But has he behaved in a truly professional spirit? Yet where does the code come in, in this? It does, to this effect. A charge is made against the offending author, and he is either publicly punished by his society, or else his accuser, fearing to make so open a stand, goes about among others of his kind; they band together, and systematically do all they can to injure the man whose work has benefited them all, but who has dared to try to advertise his own ability, which he has earned by such hard labor.

—R. Ottolengui, *Cosmos*.

GUTTA-PERCHA FOR ROOT CANALS.

Some one has said: "Success in preserving devitalized teeth depends almost solely on the individual skill of the operator, and possibly somewhat on the materials used." To me the material used is a marked factor in relation to success.

The material that is simple in its manipulation, the method that may be acquired by the majority, should rank first.

Gutta-percha seems paramount in value. Its non-elasticity, its wood-like hardness and toughness when cold, its softness at high temperatures, its insolubility in water, alcohol, dilute acids and alkalies, its ready solubility in bisulphide of carbon, essential oils and chloroform, are marked features. I think it advantageous to use it in both conditions, hard and in solution, in filling and closing canals; hard, in the form of small pellets and cones; soft, dissolved in chloroform, which is the method in common use. Then to this solution of gutta-percha—"chlora-percha," as we call it—I add an equal bulk of oil of eucalyptus and oil of cassia—the essential oils holding the gutta-percha in solution after the chloroform has to some extent evaporated, for you all know how difficult it is to carry chlora-percha into canals from the rapid evaporation of the chloroform, leaving the gutta-percha sticking to the instrument rather than to the walls of the cavity.

A prominent, an essential factor to success is that the root be in an aseptic condition. Operators differ in obtaining this result, as they do in the use of different materials in closing the apical foramen and filling the canals.

Dr. H. Storer How says: "All methods are defective in which the operator does not know that he has closed the apical foramen."

The antiseptics of to-day are familiar, and the list is constantly increasing. The foremost writers on antiseptics now advocate abolishing, as far as possible, all escharotics and coagulants in the treatment of septic conditions of root canals. No antiseptic in use by the dentist answers these questions so well as peroxide of hydrogen and the essential oils. They are non-escharotic, non-toxic—yet antiseptic and stimulant; the manner of their use is simple and positive.

In immediate extirpation of the pulp by means of forcibly inserting a plug of wood—this being preceded by an injection of cocaine, or the patient being under the influence of nitrous oxide gas—I at once wash the cavity with hot water, to stop the hemorrhage; dry out the canal with cone of bibulous paper; churn out the canal with peroxide of hydrogen, instead of carbolic acid, as an

antiseptic ; then re-dry the canal and fill with solution of gutta-percha in essential oils, which is easily worked to the apex and adheres to the walls.

Into the canal filled with the solution, carry a small piece of warm gutta-percha, gently and firmly, to the apex, following with the hard cone. The surplus solution will be forced out, and the hard cone of gutta-percha will be cemented to the walls of the canal. It will be seen that I differ here from Dr. How, if I may be permitted to again quote from his article, in which he says: "The fluid or soft plastic methods are defective, because it is only supposed, but not known, that the foramen is, in fact, tightly closed, to say nothing of the mischief likely to follow the probable forcing of the solution through the foramen."

If the pulp be in a suppurative and disintegrating condition, we remove the débris, using the peroxide of hydrogen from time to time to clean the cavity as we proceed, and dress the root with fibre of cotton or silk, saturated with oil of cassia or other essential oils.

When the root is in a healthy condition, fill with gutta-percha in the manner before described.

If the root has a fistulous opening, the canal should be cleared of débris, and filled with peroxide of hydrogen. By a piece of soft unvulcanized rubber and a blunt instrument used as a piston, the peroxide is forced through the canal and out of the fistulous opening, the whole tract being left in an aseptic condition. After again drying the canal, the solution of gutta-percha is forced in similar manner through the fistulous opening, closing the canal, as before, with gutta-percha.

Frequently, after filling the canal by some of the old methods, a slight discharge would continue from the fistulous tract ; but never have I had a case that would not yield to the above treatment. My theory is that the old sac at the apex of the root is distended and filled with the solution of gutta-percha, and this remains encysted. Some inflammation often results from forcing the solution of gutta-percha through the fistulous tract, but in a day or two at most it usually subsides.

In the treatment of root canals I have used the peroxide of hydrogen for eight years faithfully. I have used gutta-percha in different and various forms for about the same time.

From working on and refilling canals that have had cotton, oxychloride, wood and metallic stoppings, I am led to believe gutta-percha occupies the foremost position in the closing of roots of devitalized teeth.

By this treatment, from November 1st, 1890, to November 1st, 1891, I find the canals of one hundred and fifty-two teeth successfully filled after the manner described. To classify them a little more thoroughly, there were fifty-seven molars, fifty-seven bicuspid, eight cuspids, seventeen lateral, and thirteen central incisors. During this time but two were removed as failures.

I am led to advocate this method because the antiseptics as used are not coagulants, and are not escharotic; because of their non-irritating character in relation to soft tissues; and because of their pleasant odor in the office. No creolin, creosote, or iodoform is used in my office.

—F. G. Eddy, in *Den. Reg.*

WHAT SOME DENTISTS SAY OF TOBACCO.

Dr. Garrett Newkirk: Having used the weed at one time myself, I think I can look at the tobacco question fairly. I believe that the accusations presented against it to-night are true, that it usually does exert an injurious influence, especially on the nervous system; that it very frequently has a bad effect on the action of the heart, and that physicians frequently meet with cases where they would be very glad if they could prohibit its use. Frequently they try to have their patients use it more moderately, if they cannot get them to give it up altogether. Before the discovery of America civilized man did not know anything about tobacco. We might suppose, from the eloquent plea from Dr. Harlan, that tobacco is probably the greatest civilizer which this world possesses. See how man has advanced during the last century since the introduction of tobacco into Europe! The only fault in that theory is that the poor Indian, who has used it a great deal longer, does not seem to have advanced at all. It has had one effect on him and another on us. There are a great many habits in the world that are hard to account for on any reasonable grounds. I think most people form certain habits because others do, just because it is the fashion. There isn't anybody who can give a sensible reason why the ladies should be trailing their skirts along our streets. I saw one of the most prominent reformers in my office yesterday. "Well," I said, "fashion has you by the skirts." She said she had to fall in with the fashion, she couldn't be singular; so I suppose that is why a great many people chew tobacco and drink, and why they do a great many things, just because other people do. There is no philosophical reason for it.

Dr. C. F. Hartt: If tobacco preserves the teeth it does it in a very unsatisfactory manner, and we, as dentists, owe it to ourselves

and to our brothers to discourage the use of tobacco, because it not only destroys the beautiful appearance of the teeth, but causes a man to become careless, taking less pride in them. In addition, the man who sells the tobacco gets the money that the dentist ought to have.

In a word, let the tobacco fiend worship at the altar of his family dentist, and arm himself with a good tooth brush, and he will then have very little excuse for continuing in a habit which is not only expensive, but very annoying to the majority of refined and cleanly people.

Dr. Truman W. Brophy: A number of years ago, when the question of the preservation of the teeth by the influence of tobacco was under consideration, I had a discussion with a friend of mine, who told me he had been making some experiments with a view to ascertaining whether tobacco really does preserve teeth or not; he believed that tobacco was an antiseptic and would preserve the teeth; he believed that smokers' teeth were better than the teeth of those who did not smoke, and that the teeth of chewers were better than those of people who did not chew. But he was surprised at the result of his experiments. He told me that he placed some extracted teeth in a solution of tobacco, and in the course of six or eight weeks they began to disintegrate; the action of the tobacco on them was similar to that brought about by the influence of acids. The gentleman who made these experiments was Prof. Haines, of Rush Medical College. I mention his name because he is recognized everywhere as an expert on the subject of chemistry, and the results of his experiments would have a great deal of weight in settling the question. I would say that the tobacco he used was bought at the stores where tobacco is sold to men who chew and smoke; I don't know that there is any such thing as pure tobacco.

UNIVERSITY EXTENSION.

At Cambridge, England, Prof. Stuart was invited by a group of ladies to talk to them on pedagogics. He said that he could not lecture on the theory of teaching, he could not give one lecture, least of all half a dozen or a dozen, but he would be very glad to illustrate to them the methods of teaching by giving them a course of twelve lectures on history. To bring more clearly before their minds the idea which he had, he presented a printed analysis of his lectures which the students had before them in the class. This he termed the Syllabus, and that is now the technical term by

which the outline is called, which is always put in the hands of University Extension students. University Extension is not complete without it.

From this beginning has resulted now a movement which in England reaches at least five hundred localities, and in this country is constantly growing. The central idea of the system is thorough systematic instruction on the part of a specialist in his particular branch, a man associated with the university. In England the affiliation with the university is not so close as here, because the demands have become so great that it has necessitated a staff of lecturers not intimately connected with a university. In America up to the present, and I trust it will always continue so, the men are actual university professors or instructors, and have come from university life and enthusiasm, fresh from their study rooms and their classes, and bring their results to the people in the systematic way in which alone such ideas can be impressed on those who are not giving up their time to study.

A great feature of University Extension is the fact that one does not have to give himself up wholly to it except for a brief time, but in that brief time it does demand concentrated attention. The lecturer speaks to the people for an hour, and the results of that are dependent largely on his hearers' attention. If they fail to remember every word of the lecture, at least with the help of this Syllabus which they have in their hands, at some future time they may recall what he has said. After this lecture they have a quiz of an hour, in which an opportunity is given for the lecturer to become acquainted with this new class of students, and to have them come into personal contact with him, and to gain more of what he has to give, to learn by questioning him, perhaps, much of what he has in reserve. If any of those who are in the class desire afterward to pursue the study, they have the opportunity of sending to him weekly or fortnightly, papers on questions which he suggests, and at the end of the course they may take an examination. Now there is in this every advantage of university work and the additional advantage which I think we are coming more and more to see, that we can carry it along with our other affairs of life. We have the means and the stimulus of life held before us all the time in our business, in our professions, even in retired life, and this may be coupled with the scholarly acquaintance that is formed by these studies, making that ideal life which the students in the universities do not realize, which our professional and our business men do not realize, because both of these classes are in the habit of divorcing the true intellectual and the true social development.

I think it is of interest to you that this last year of the lectures given by the University of Oxford, which amounted in all to nearly five hundred courses at various places throughout England and Wales, two hundred and nineteen were purely scientific. Now we know from the history of the University Extension movement that it is usual to start centers with courses on literary or historical subjects. They appeal to the largest class of people, and it is with some centers a subject of time to work up interest in a scientific theme. But the fact is coming to be seen that there is this demand for the sciences, and when they attempt to satisfy this demand they get on the whole better work out of the students than they do in the literary, historical and economic fields. These lectures by the University of Oxford, as well as those given by the universities of this country, embrace the whole field of the scientist, and although they cannot be expected to give such thorough laboratory or microscopical work as is done in the colleges, at the same time advantages are given to earnest students who can remain with the classes and do just as exact work for this brief time as is done by the scholar in his laboratory or in his study. It is coming to be recognized that the sciences can be taught to those who have but little time, and that is the important feature for us Americans to consider; for we are so rushed, we are in such great haste in our life, that we do not take time to rest. Yet if we are going to continue to labor in a state which demands competition, we must yield to the competition, and this competition drives us on, so that the only way we can get an opportunity for intellectual development is by saving an hour now and then. That saving can be affected by making an engagement with the lecturer, writing down one's engagement and keeping it weekly or fortnightly, and using one's spare moments for preparation. I do not hesitate to recommend even to men in professional life, even to dentists—and I recognize the standing that American dentists have among scientists and the world—I do not hesitate to recommend to such a body of men, the kind of studies that are pursued now by workingmen, by wealthy people, by every one, because this movement can be adapted to those who can pursue the study, and it can be made just as scientific as the equipment of the listeners demand. The subjects that are treated are such as you and such as other men in like professions demand, they are subjects which on the whole, without having time to personally investigate, that is, thoroughly investigate, these men must necessarily have a superficial knowledge of, or neglect their profession. Here is the advantage of bringing to you a specialist with his patiently acquired results, an authority on his sub-

ject, and who has done the work which the pressure of other work prevents your doing. I believe thoroughly that if bodies like this, scientific societies, organizations of professional men, would interest themselves in this movement, interest themselves by doing thorough work in an extension course, it would not only be of inestimable advantage to them, but it would raise the standard of University Extension, and that is just as important with us as raising the standard of our colleges. We are in danger of making all such movements too popular; let us make them scientific by giving to them the support of scientific men.

—Prof. C. N. Zeublin, in *Dental Review*.

CARE OF THE DECIDUOUS TEETH.

Children require more tact and skill for successful management, and their work is probably more of a strain on the operator than any other patients. But they must be served, and if this paper will draw out in discussion the methods adopted by our most successful operators, and show how best to serve them, our object will be accomplished. I shall make no pretense at anything new or startling, but simply outline my method of dealing with the little ones from the time they are usually brought to us—seldom before the fifth or sixth year—and in so doing hope to be as practicable as possible. Could we reach the ears of all parents and impress on them the great necessity of the constant care and attention the teeth of their offspring demand, and the suffering that may be prevented by early and frequent visits to the dentist, then our work with them would be easy and pleasant.

There is too much inclination with busy practitioners to pay but little attention to the children when they tremblingly enter our office. But if they are approached rightly and confidence is once gained, there is no part of our practice more satisfactory, and for which more blessings will be bestowed, and in the long run more remunerative; for confidence of the child once gained insures the confidence and patronage of the family.

If this cannot be done at the first visit, it is much better to dismiss the little one pleasantly, and make another appointment. We must study children closely, being ever kind, yet firm, using no deception.

The trouble we have with so many children is caused in a great measure by their parents, or those with whom they are closely associated, so often relating in the presence of the child their experience while in the dental chair, till the very presence of the dentist on the street causes a thrill of horror to creep over the little frame.

Soon we see the same person entering our office with the young hopeful crouching beneath the folds of her skirts, assuring the child that it "won't hurt."

Our first business then is to allay the child's fears if possible. If the work necessary to be done must cause pain, say so kindly, and if the parent is inclined to give more trouble than the child, you should not hesitate to invite her to occupy the waiting room. But usually the first work may be not only not painful, but soothing to the very pain that brought the little one. And all our after treatment may be much less painful than is generally endured.

After the first visit, if another is necessary, I invariably encourage the child to come alone the next time, and usually succeed. If not entirely alone, accompanied by a schoolmate or playmate. Nothing adds so much to a little fellow's courage and importance as to be able to show his playfellow what he can endure.

Occasionally the disposition is such that it may be necessary to use force to compel submission to some slight operation—such as the removal of a very loose tooth to give room for the permanent one that is being forced out of position.

And in this connection I would say, cultivate skill with the fingers and remove as many such as possible without the aid of instruments, and when once understood you will be surprised at the number that can be displaced in such a way.

For such operations, if the child's fears cannot be allayed, I think it is better, as a rule, to use a napkin saturated with chloroform held to the nose for a few moments. Whatever is done we should aim to make a friend of the child before he leaves the office.

The eruption of the temporary and the permanent teeth should be superintended by a competent dentist. In infantile troubles of doubtful diagnosis the dentist should be consulted as to whether the trouble may not arise from dental irritation. We should endeavor to impress on the parents the great necessity of looking after the temporary teeth, and not allow them to decay down to the gum margins without an effort being made to preserve them. The natural way is for these teeth, by the absorption of the roots, if not actually to fall out of the way of the permanent ones, to become so loose that they are easily displaced. If for any reason such absorption does not take place, under no circumstances should the first be allowed to remain in place till the second is making its appearance through the gums, causing irregular permanent teeth.

Neither should the first be removed too soon. While a great deal of the alarming prevalence of decay is owing to lack of function, yet instruction should early be given in the use of the tooth-

brush, and those in charge of children should be impressed with the importance of frequent and thorough cleaning of the teeth as well as the whole body.

After their eruption, they should be examined from two to four times a year, and such attention given as the case may require. When the time comes for their removal, the skillful dentist is the proper person to perform such operations.

We come now to the treatment of caries in such teeth and take it for granted that all are agreed that such teeth should be filled.

For such cavities on the grinding surfaces I usually use amalgam, and also in proximal cavities where a sufficient undercut is easily obtained. But where I cannot get sufficient undercut without causing pain, quick setting cement, and frequently gutta-percha is the best thing to be used.

When the pulp is exposed and badly inflamed, causing paroxysms of pain to the little sufferer is the trying time both for operator and patient. The first thing is to relieve the pain, and by washing the cavity with warm water, drying, and applying a little oil of cloves the desired result will usually be obtained. I have also had good results with campho-phenique. Keep the cavity sealed with occasional changes in the dressing till the pulp dies, then remove and fill the canals with chloro-percha and the cavity of decay either with gutta-percha or amalgam.

Where there is a putrescent pulp causing an abscess to form, accompanied by profuse swelling of the surrounding tissues, the first thing is to relieve the pain, though the method of relief be quite different. Remove the débris from the cavity opening into the pulp chamber and let the pus escape. Then by applying a dressing of oil of eucalyptus or campho-phenique, seal up the cavity temporarily and dismiss the patient for a few days. As a rule, at the next visit the roots and crown can be filled. If the pus cannot be gotten rid of it may sometimes be advisable to extract. In all operations on the temporary teeth the operator should be very careful not to allow an instrument to slip, any medicine to touch the tongue, or anything that will shake the confidence of the child. It is very seldom that the rubber-dam can be used, so we are obliged to resort to other means for keeping the tooth dry. Very small soft napkins, or rolls of absorbent cotton carefully applied are quite efficient.

But don't do anything that will make the child imagine that he is going to be choked to death. Better fill the tooth even if a little moisture does get in, than to unnecessarily frighten the patient.

—J. H. Cole, in *Dental Review*.

SOME OF OUR NEW ANTISEPTICS.

ARISTOL.

This remedy was discovered in a laboratory of Elberfeld, Germany; prepared by pouring an aqueous solution of potassium iodide into an alkaline solution of thymol, which gives a reddish-brown amorphous precipitate. It has no unpleasant odor, is non-irritating, non-poisonous, insoluble in water, alcohol and glycerin, but soluble in chloroform, ether, essential oils, and slightly so in campho-phenique; infinitely safer than bichloride of mercury and less irritating than carbolic acid; contains 14.8 per cent. iodine, which it readily yields up. This property, Dr. E. C. Kirk says, is perhaps the key to much of its therapeutic value, affording, by decomposition in the presence of purulent secretions, a means for the presentation of iodine in the nascent state, in which condition its well-known antiseptic and germicidal properties are most active. Aristol is similar to iodoform, but has not its disgusting and suspicious odor, nor its toxic properties. A chloroform solution on cotton is a very pleasant and efficient substitute for sandarac as a wedge or temporary filling. It is entirely antiseptic, and after remaining for a week, has no unpleasant odor or taste. A thick chloroform solution makes a very good capping varnish flowed on paper, asbestos, felt, sheepskin or some other material. As an injection for fistulous openings, or as an application for pulpitis, a 10 per cent. solution in sulphuric ether is recommended. Dr. Kirk reports astonishing success in the treatment of pyorrhea alveolaris with a 10 per cent. solution in oil of cinnamon or oil of wintergreen. As a dressing for root filling it seems to be just what we have been looking for in combination with campho-phenique on cotton, or in a 10 per cent. solution in chloroform with gutta-percha. I have used it with campho-phenique for some months, and have found it more efficient than any of the other drugs I have experimented with. As it mixes more readily with campho-phenique, I regard it as preferable to iodol. I find it especially useful in cases where, after an application to destroy a pulp, it is not quite dead. I open the pulp chamber and put in a pledget of cotton dipped into campho-phenique and then into the aristol powder. This I leave for about a week, with a temporary filling over it. At the end of that time I find the nerve has become much toughened and is easily removed. To quote again from Dr. Kirk, he says, "My own experience with it makes me commend it unhesitatingly, feeling assured that it possesses a unique combination of chemical, physical and

therapeutic properties, which must, as it becomes more widely known, win for it a permanent and increasingly useful place in the catalogue of our therapeutic agents."

HYDROGEN PEROXIDE.

Though discovered in 1818, it was not till about ten years ago that peroxide of hydrogen was used to any considerable extent in surgery, and it is only within a year or two that it has been extensively used in dentistry. It is a clear, odorless, watery liquid with a bitter taste. Marchand's preparation is the best on the market. It should be kept cool, as when warm it decomposes and becomes so much water; should never be used with metal instruments, as that impairs its usefulness. It is used extensively in treatment of alveolar abscess, pyorrhea alveolaris, necrosis and caries, and lacerations and wounds of the mucous membrane. While perfectly harmless, it is the strongest bactericide known. It has been said that "rats have as good times with terriers as microbes have with the peroxide. It readily reaches the pus in its secret recesses, and by the boiling and bubbling process carries it out with its corpuscles, microbes and company."

This agent, "in contact with diseased tissue, decomposes, and the ozone coagulates the albuminoid matters of the secretions, the pus is destroyed and also the bacteria." (*Headlight*.) Peroxide is of little use for sterilizing cavities, as it acts only on a very thin layer of the dentine, and will not penetrate any deeper. It is almost impossible to obtain a sample free from hydrochloric or sulphuric acids, and some think these may be responsible for the boiling and bubbling.

Dr. D. R. Stubblefield, of Nashville, says, "Further experiments repeated several times with the same sample showed the effervescing action when the peroxide was applied in root canals, whether there was any pus present or not; also, that when the drug was placed in contact with pus outside of and away from a tooth, there is no evolution of gas. The next step was to free the peroxide from all acids, when there was no evolution of gas whatever, in the canal or out of it, in contact with pus or away from it, in the mouth or in the tooth out of it. The last experiment was with hydrochloric acid by itself, and it produced almost the identical phenomena as those by the peroxide in the first place, evolution of gas and all." Notwithstanding these experiments there is no doubt hydrogen peroxide has a place in the dental office to whatever it may owe its properties.

CAMPHO-PHENIQUE.

Though this is comparatively a new remedy, still it has been extensively experimented with, and reported in the *Medical Age* as an antiseptic without a rival. It is prepared by adding 49.5 parts of crystal carbolic acid to 50.5 parts of gum camphor. Dr. J. Foster Flagg, of Philadelphia, says it is "the most remarkable medicament which has ever been offered in connection with dental therapeutics. When it is known that it is a notable germicide, an efficient antiseptic, a non-irritant, a decided local anesthetic, non-poisonous, insoluble in water or glycerin, does not stain or discolor, is possessed of agreeable odor, and not disagreeable taste, and maintains an unchanged integrity, it will at once be recognized as wonderfully adapted to a large proportion of all dento-pathological conditions, from sensitivity of dentine, through the varying conditions of pulp-irritation, pulp devitalization, pericemental irritation, alveolar abscess and caries, and necrosis of contiguous osseous structure, and that it must rank as one of the most, if not the most, valuable polychrest which dentistry possesses."

Where cotton is indicated as a wedge, if dipped into this remedy, the pain of separating and subsequent preparation of the cavities is reduced to a minimum. It is serviceable in the treatment of wounds, burns, scalds, sensitive dentine, pulpitis, periostitis, for canal dressing on cotton, fistulous canals. Hypodermically it is used as a local anesthetic without any constitutional disturbances. By a series of experiments it has been shown that pure campho-phenique is perfectly safe to be used in the mouth, and that in that condition it is as efficient in inhibiting germs as a 1 in 85 solution of bichloride of mercury. This solution of corrosive sublimate is six times as strong as is safe on the unbroken skin, and twenty-five times as strong as is safe on cut surfaces. If any of you have not used this remedy, I would strongly advise you to give it a trial.

IODOFORM.

One drug which has been used considerably in dental practice, and one which, after a short trial, I burned, is iodoform. It is prepared by the action of chlorinated lime on an alcoholic solution of potassium iodide, heated at 104° F. It is in the form of a bright crystalline powder, with an extremely disgusting odor, insoluble in water, but soluble in alcohol, chloroform and ether. It is generally used in combination with oil eucalyptus, oil cloves or oil cinnamon, and is recommended especially in septic roots and pyorrhea alveolaris. "Although destroying organisms less readily than carbolic acid, according to Miller it is ten times as powerful in preventing

their development, and it would appear to have a much more marked effect than it as a disinfectant and deodorizer." (S. H. Hayward, in *Dental Record*.) As far as its properties as a deodorizer are concerned, I fancy the cure would be about as bad as the disease. On account of iodoform's toxic properties and its abominable odor, iodoform has been extensively substituted for it. This is prepared by precipitating pyrrhol (a derivative of animal oil) with iodo-iodide of potassium. It is insoluble in water, but soluble in alcohol and ether, and slightly so in glycerin. It is chiefly used with glycerin under any conditions where iodoform could be used.

Though I have mentioned only a very few of the many desirable antiseptics, I trust I have said enough to provoke an animated discussion, which will, I am sure, bring out many points which I have not had time to touch on, and which will be of benefit to us all.

—W. E. Willmont, in *Dominion Journal*.

PULPLESS TEETH AND ABSCESSSES.

Formerly, after removing the pulp, I treated with carbolic acid or creosote, and when the patient returned a substance was found in the smaller portions of the pulp canal, very sensitive to the touch of a broach and incapable of absorbing any remedy which I could use for the purpose of relieving this condition. I now remove, if possible, all the pulp at one sitting, and immediately fill the pulp canals. By the use of cocaine this result is accomplished without producing much discomfort.

In teeth with dead pulps which have never manifested any symptoms or pericemental inflammation, especially if the patient has passed the age of forty years, I do not hesitate to fill at the time of second treatment, and in a few a filling is made at the first sitting. For instance, a patient of the last class mentioned calls for treatment within a month. I find a large anterior proximal decay in the first right upper molar. The nerve has evidently been dead several months. There is no soreness on percussion, and after adjusting the rubber-dam and thoroughly cleansing the cavity, I thoroughly dry with hot air, then wash the entire cavity with alcohol, repeating this treatment a number of times at this sitting, and fill immediately with gold, without having any subsequent unfavorable symptoms. This is immediate root filling.

But some pulpless teeth will show soreness on percussion. Here is an evidence of pericementitis by a well-known dentist in

this city, that in treating this class he removes all the dead pulp, disinfects the tubuli, and then uses hot air to evaporate all the moisture possible, so that the process of disinfection can be hastened. The pulp canals should be washed several times with alcohol, alternating the alcohol with the use of hot air, this will most quickly produce the conditions desired, so that the operation of filling can be accomplished without causing subsequent irritation.

I seriously object to leaving the pulp canals unfilled any longer than is necessary. Moisture, and especially air, are both irritants and both detrimental to the process of healing. Hence, the object of eliminating the moisture by the use of hot air and excluding the external air by permanently closing the pulp canals. I firmly believe from experience and observation that many teeth have been lost by prolonged treatment, many times from force of habit, and that pericementitis has been produced and maintained, where this complication would not otherwise have existed.

To treat a pulp canal without removing all the dead pulp, or to place any medicine in contact with the walls of the pulp canal without first thoroughly evaporating the moisture with hot air, I regard as a waste of time, and bad surgery. An abscess may be cured by using carbolic acid or creosote placed in contact with moist tubuli, but that is not proof that there is not a more excellent method by which the same results can be accomplished more surely and quickly. When you recall the difficulties with which you contend in disinfecting the tubuli when filled with moisture, as compared with the results obtainable after thoroughly evaporating the moisture from the pulp canals and tubuli with hot air, I am sure you will discard the former practice and adopt the latter.

Another reason for not using carbolic acid in treating pulps is that it coagulates them and does not penetrate the dentinal tubules, and has a tendency to close the foramen, preventing free drainage, which is so essential. As an injection through a fistulous opening, if one is used for the purpose of stimulating granulations, I recommend boracic acid or sulphate of zinc. I assisted for five years a surgeon with an extensive practice, and the one fact which he most impressed on me was to not indulge in what he termed "meddlesome treatment." He said he believed this to be a fault among surgeons, and my observation since convinces me that this is a fault with dental surgeons.

In treating a fistula a common error is that an abscess will not occur on a tooth where the pulp canal has been perfectly filled.

If a case be presented with the pulp canal unfilled and fistula, I thoroughly evaporate the moisture from the pulp canal with hot

air, then wash the canals with alcohol as previously described, and fill at once. If the abscess is one of recent development, I wait at least ten days after filling the pulp canal. If the abscess remains, I conclude the maintaining cause is rough margins of bone, and remove them with my engine and fissure bur. I have not found it necessary to resort to any further treatment. Thus, I am clearly of the opinion that two causes invariably maintain an abscess: one is the diseased condition which may exist within the nerve canal, and the other is rough margins of process. If the abscess is of recent development, cleansing and thoroughly filling the pulp canal as described will effect a cure. If the abscess has existed for several months, then removing the rough margins of process I have found to be necessary. If the maintaining cause of a recently-developed abscess was other than an unfilled pulp canal, then simply filling the canal would not cure the abscess; and if after the pulp canal has been filled, it still remains, and is then cured by removing rough margins of process, then, reasoning by exclusion, I must conclude that these must have been the originating cause.

Now, if either or both of these methods, whichever the condition indicated necessary, will produce a cure, then why use carbolic acid or creosote? I do not deny that abscesses have been cured by their use before and after filling the pulp canal, but is such a result proof of the fact that their use is required? Extracting a valuable tooth may cure an abscess, but that is not proof that there could not have been devised a more excellent method.

The advocates of carbolic acid and creosote claim that their use is necessary to destroy the pus sac surrounding an alveolar abscess, and that the destruction of this sac is essential to the cure. If the use of these remedies and the destruction of this sac is necessary, then why not necessary in the cure of abscess in any other portion of the body? I challenge any gentleman to produce an authority on surgery in which the destruction or removal of this sac is advocated, or where it is claimed this has anything to do with maintaining an abscess on any other part. And yet in alveolar abscess, where the tissues surrounding the disease are peculiarly non-vascular, and where, if the osseous tissues were *not involved*, the conditions would be favorable to the healing, we are told they are essential to the cure. This sac is simply a barrier thrown out by nature to circumscribe the disease, and maintained by a diseased condition within the pulp canal, and the rough margins of bone. Remove these two maintaining causes, and the disease is cured, without the use of carbolic acid or creosote.

RUBBER-DAM.

The dam should be applied as soon as the cavity of decay has been cleared of *débris* and syringed with tepid water.

I have repeatedly observed that the rubber has a subduing soothing influence on the patient, especially on the restless and impatient. They become at once submissive, and tolerate uncomplainingly what they would otherwise pugnaciously rebel against. It at once makes the operator master of the situation and his patient. We all know how sensitiveness of the dentine is diminished in proportion to the dryness of the cavity, and as there is no easier or more effective way of securing this dryness than by the dam, its use during the excavating of a sensitive cavity is particularly indicated. As the suffering of the patient is less, to this extent is the working of the sympathetic operator more satisfactory to himself. Excavating can be performed more quickly and easily, and consequently with less pain.

Generally, no operator can be sure he has his cavity thoroughly prepared till he has made an examination by aid of the rubber-dam. I have repeatedly, with the view of instituting a comparative test, most carefully prepared proximal cavities with the aid of napkins, bibulous paper, etc., and when I have thought them perfect, then on applying the dam, have found myself mistaken, and I challenge every doubting Thomas, or self-confident Peter, to make the experiment. The exclusion of the moisture and the evaporation from the surface of the cavity long protected, causes such a dessication of the tooth as to enable me to perceive, by its whitish look about the borders of my cavity, some decalcified point which would otherwise have escaped detection. 'Twould be better, if the operation be not too long and fatiguing to the patient, not to remove the dam till the completion of the filling.

In the preparation and treatment of pulp canals the dam is essential. No canal, after treatment has once been begun, can, with safety, be permitted to become wet. Besides, it greatly facilitates the thorough cleansing of the canal. After the cavity has been dried out with warm air, the fragments of the pulp and the cuttings of the drills and excavators can be easily removed while in the dry state. If the patient becomes much fatigued, the rubber affords opportunity for intervals of rest while going on with the operation. And it is particularly at this juncture toward the completion of the filling when the great advantage of the dam manifests itself in securing immunity from moisture from saliva and breath, in giving the operator two free hands with which to work, and affording him

that feeling of security and confidence which can only be appreciated by contrasting it with the anxious dread of a ruined operation by the threatened overflow of welling-up saliva.

But if the rubber dam is so desirable, let us look a little at the manner of applying it. The medium and the thin rubber is better than the thick, which is rarely called for. The next all-important requisite is an Ainsworth rubber-dam punch, and those who haven't one had better throw away their poor makeshifts and procure it immediately. The immense satisfaction and saving of time in its use for but a short time, will repay you. Cut your holes one-eighth or three-sixteenth inch apart, or according to the special demands of the case. It is generally well to include at least two or more teeth to the front of the tooth operated on.

In operations on molars and bi-cuspidis I usually have my rubber to embrace the cuspidis, too, and on the oral teeth I include about four teeth. In putting on the dam begin with the forward teeth in the upper jaw and the back ones in the lower jaw. The lower incisors will require very small holes and the molars very large ones, particularly when the rubber is to be stretched over a clamp. With your holes properly sized and located, prepare the teeth for reception of rubber by carefully removing with instruments and bibulous paper, all collections of tartar, food, mucus, grease, etc., which will serve as obstacles to prevent its going down on the necks of the teeth, or lubricants to make it slip off. Pass floss silk between the teeth to further cleanse them and to open the way by slightly forcing them apart, filling between.

The next step—of stretching the dam over the teeth—has to be learned by observation or experience, it cannot be described. There is a deft manipulation by which the two forefingers stretch the holes and at the same time turn the edge toward the tooth, which can only be acquired by practice. The dam must go in edge foremost. This is almost absolutely necessary, particularly where the teeth are close together, and in these spaces it is wonderful where you can carry rubber by gentle, but continued stretching. Give it time and it will work its way down. To allow the rubber to pass through close places, sometimes teeth may be spread by a lancet, thin burnisher, wedge of wood, or, better still, the thin steel separator.

Now comes, often, the real difficulty—to keep it on. The first expedient is the floss silk with which the dam is carried, edge toward the gum, into the gingival space and on the neck of the tooth. If it be thus carried well up on the neck it will generally stay. It will assist materially in retaining it to dry off the tooth

while holding the dam on with the fingers. Wipe it dry, leaving your paper pellets, temporarily, all around and between the teeth and in the proximal cavities. Put the dam down with pellets, instead of with burnishers as is usually done, retaining every point gained.

When a tooth is conical and the dam will keep slipping up (I am speaking of lower teeth), wedge it down with paper pellets in the proximal spaces. Where a proximal cavity extends considerably beyond the gum, after having carried the dam into position at other points, you may succeed in carrying it over and beyond the margin of the cavity by packing the cavity with paper pellets and then pressing them outward.

A specially difficult case : Proximal—lower molar, below gum—dam stretching from high point to high point. I use cocaine, and lance the gum, separating it from the tooth, and the dam goes down.

Another case where we experience difficulty is the cervical cavity on the six oral teeth. I overcome that by filling the cavity with gutta-percha, stretching the dam over it. Cut out one-third, and fill that with gold, allowing gold to overlap.

Now, we use clamps, too, and there are many to select from, but the clamp that will do in one case may not answer in another. I like Ivory's clamp much. It will enable you to carry the rubber-dam at the same time that you apply the dam. Sometimes I apply the clamp and stretch the rubber over it. To do that you must have a number four hole, or a punch with which you can make the hole necessary, but it *can* be done without. Dr. Truman says that the use of rubbers and clamps is apt to produce pyorrhea alveolaris. I do not think so. Very little care will obviate that. I like the Johnson clamp if there are cervical cavities; that keeps the rubber up, and can be used to advantage.

The most difficult place for me to apply the clamp is the third molar. When the patient opens the mouth, the jaw is thrown forward, leaving but little space to work.

It is objected to the dam that it is very uncomfortable to the patient, and some patients seem to think it is dirty. It may be uncomfortable, but it is not dirty. The discomfort can be obviated by the use of napkins spread under the dam, and by teaching, or inducing, your patients to swallow the saliva; if they do this the flow of saliva will cease directly. Then, again, I throw the chair back, and that has a tendency to throw the saliva back. Some patients are very fastidious, and say, "I don't want that nasty thing put in my mouth," but I tell them the rubber-dam is absolutely cleaner than their handkerchiefs; that their handkerchiefs

have been washed with many soiled garments, but that this dam is impervious to water; that there is nothing to dirty it but their own saliva, and they can avoid that by swallowing it. Then we can use aprons, and so on.

— W. C. Wardlaw, *S. Den. Journal.*

OUR LABORATORIES.

We do not seem to realize the importance of strictly first-class mechanical work. After an impression is taken it is turned over to the student or office boy, if we have such a fixture about the office, and he is told to make the models and articulate the teeth, oftentimes the job being completed by him without the dentist so much as inspecting the articulation of the teeth while on the models.

Of course we all do not do such things. Instead of making a specialty of "*fine gold fillings*," we should make a specialty of perfect adaptation and articulation of artificial dentures, and take equally as much pains with our operating.

There is as much in constructing a perfect fitting plate as there is making a perfect filling.

Many dentists are poor mechanical workmen, while they are excellent operators. Simply because they do not take the pride with plate work that they do with operating.

A country practice requires a man that is an all-around workman, he can not confine himself strictly to operating or mechanical work. While, on the other hand, the city practitioner can send his impressions to the laboratory where the work is finished ready for insertion in the mouth.

We can not be too careful with our plate work; many a case is ruined in polishing, by overheating and springing. Many times before the plate is removed from the flask it is imperfect, on account of not giving the investment time to thoroughly harden before attempting to pack the case. Then again by filling the flask too full of rubber and attempting to close it.

Plaster should have at least four hours to harden before it is put under screw pressure.

These points should receive careful attention if you wish to make a success of mechanical work. Then, too, keep your laboratory clean, have a rack for your files and scrapers, and keep them there. Do not have them lying around on your bench covered with plaster so deep it is almost impossible to find them.

H. W. Goodell, *Cherokee, Kansas.*

THE CONTRACTION OF RUBBER PLATES.

The fact is well established that vulcanite contracts in cooling, and, in consequence, dental plates made up with section teeth frequently warp, and require manipulation before a satisfactory fit is secured. In upper plates, the change is quite apparent, the rear palatal portion being thrown up, causing the plate to rock. The arching up of this part of the plate is caused by the contraction of that portion immediately behind the teeth, the thin palatal part acting as a stay, and diminishing to some extent the amount of change experienced.

When, in repairing an upper plate, the center portion is sawed out, it will be found that its heels will spring together, certainly as much as the amount removed by the saw cut, and sometimes even more. This shows that the same action takes place with lower plates, and to a greater extent than with upper ones. As they leave the vulcanizer, full lower plates, with section teeth, are always sprung together at the heels, and are too narrow for the mouth. If they are revulcanized, they are thereby made still narrower, and are, thereafter, in many cases, not capable of being worn with comfort. If they are heated sufficiently to soften the rubber and are then widened, the beneficial effect on the fit will be quite apparent.

Dr. Snow, in Practitioner and Advertiser.

STOP SPITTING.

The modern gospel of prophylaxis teaches that phthisis can be abolished from the face of the earth if only people would stop spitting. Says Dr. T. M. Prudden :

“ If the vile and increasing practice of well-nigh indiscriminate spitting goes on unchecked in nearly all assembling places and public conveyances ; if the misguided women who trail their skirts through the unspeakable and infectious filth of the street are to be admitted uncleansed into houses and churches and theatres ; if theatres and court-rooms and school-houses and cars are to remain the filthy lurking places of contagion which their ill ventilation and their mostly ignorant and careless so-called cleaning necessarily entail ; if in sleeping-cars and hotel bedrooms the well are to follow consumptives in their occupancy without warning, or even the poor show of official disinfection ; if in ill-ventilated and ill-cared for dwellings, the well must breathe again and again the dust borne seeds of tuberculosis ; if no persistent warning is to be given to the ignorant of the dangers which lurk in uncleanness—then our task

will be most complex as well as difficult in limiting the contagiousness of tuberculosis."

Of course cleanliness and plenty of water are necessary ; but, after all, it is the expectoration which carries the germ and promotes the spread of disease. Spitting, it seems, is not only a vile, but an increasing, habit. This is an unfortunate social fact which reformers do not seem to have grasped, despite its noxiousness. Shall we not have to have a Society for Prevention of Expectoration—except into sanitary spit-cups? If one could stop the spitting habit, prevent the spread of consumption and finally stamp it out, he would be greater than a tariff reformer.

—N. Y. Medical Record.

A DENTAL DUEL.

The *Journal für Zahnheilkunde* extracts from the *Breslau Morning News* a report of the results of a dispute between two dental students. One came from Silesia, the other from the Rhine. The Silesian thought that the Rhinelander made too much noise in the University laboratory, and called him a "simpleton who deserved to have his ears boxed." The Rhinelander thereon challenged the Silesian to fight a duel. It was originally arranged that swords should be the weapons used, but, as the Silesian said he had a sprained wrist, pistols were afterwards agreed to—two shots at fifteen paces. This fight came off on the first of December last year, at the Swedenschanze, near Oswitz. Neither of the combatants seem to have been particularly blood-thirsty. The Silesian fired first, in the air, and made it so apparent that his opponent must remark it; and the Rhinelander, who did notice it, fired some seconds later, also in the air. The seconds smoothed the way for a reconciliation, and the Silesian and Rhinelander, much moved, shook hands with each other. But the end was not yet, for about July 6th they found themselves standing in court, charged with dueling, and although they urged that it had been decided that a duel in which the shots were fired in the air was a sham fight, and exempt from punishment, it was shown that the case only held good when such a method of exchanging shots had previously been agreed on. In the present case, the second culprit only fired in the air when he saw the first had done so. There are some other amusing points in the report, but to make the story short, the Rhinelander was sentenced to three months hard labor, and the Silesian to five.

DEATH IN A DENTIST'S CHAIR.

Mrs. Phillip Sebest, a comely married woman, met death in a dentist's chair in Elmira, N. Y., recently. The cause of her death is not fully accounted for by the physicians, as the autopsy showed her heart to be in a normal condition, and a combination of causes was the verdict of the doctors. Shortly before five o'clock Mrs. Sebest went to the office of Dr. G. H. Preston, on West Water street, to have some teeth extracted. He administered nitrous oxide gas, and placed his nippers upon the tooth to be extracted. Mrs. Sebest said to the dentist that she felt the pain, and wanted the dentist to administer more gas, which he refused to do. When the tooth was drawn she uttered a scream, and spat some blood in the cuspadore, gasped, and fell back in the chair, dead. Drs. C. W. M. and M. M. Brown were summoned, and also Coroner Westlake, who made an examination. It is claimed that Dr. Preston had before, on several occasions, administered gas to Mrs. Sebest without injury, and it is thought that the excessive heat, pain and excitement brought on a stroke of apoplexy. Mrs. Sebest's sister was with her at the time the operation took place, and certified to the fact of the dentist's refusal to administer gas a second time.

POST-GRADUATE TEACHING.

Systematic courses of instruction are still being carried on for medical men, who are thus enabled to keep themselves posted in all the most recent views and methods of the physicians and surgeons of the front rank. A somewhat analogous arrangement was made at the dental hospitals for practitioners a few years ago, and seemed to be appreciated. Sir James Paget, in an address last week, alluded to the erroneous impression that a license or diploma is a thing which not only conferred a legal right, but a sort of moral right to practice. Sir James held that it did nothing more than declare that the person who received it was fit to practice on the day on which it was conferred, and that it would depend on the holder himself whether he would be fit ten years later. The only way is to remain constantly a student, and, though the circumstances are not precisely parallel, it would seem that dental practitioners may apply the above remarks to themselves, and, in default of post-graduate classes, should lose no opportunities of attending demonstrations and other professional meetings which may be open to them, that they may observe the application of even well-known facts by others.

TOOTH CULTURE.

In a capital address on "Tooth Culture," delivered at the annual meeting of the Eastern Counties Branch of the British Dental Association, printed in the current number of the *Lancet*, Sir James Crichton-Browne referred to a change which has taken place in bread, as one of the causes of the increase of dental caries. So far as our own country is concerned, this is essentially an age of white bread and fine flour, and it is an age, therefore, in which we are no longer partaking, to anything like the same amount that our ancestors did, of the bran or husky parts of wheat, and so we are deprived to a large degree of a chemical element which they contain, namely, fluorine. The late Dr. George Wilson showed that fluorine is more widely distributed in nature than was before his time supposed; but still, as he pointed out, it is but sparingly present where it does occur, and the only channels by which it can apparently find its way into the animal economy are through the siliceous stems of grasses and the outer husks of grain, in which it exists in comparative abundance. Analysis has proved that the enamel of the teeth contains more fluorine, in the form of fluoride of calcium, than any other part of the body, and fluorine might, indeed, be regarded as the characteristic chemical constituent of this structure, the hardest of all animal tissue, and containing 95.5 per cent. of salts, against 72 per cent. in the dentine. As this is so, it is clear that a supply of fluorine, while the development of the teeth is proceeding, is essential to the proper formation of the enamel, and that any deficiency in this respect must result in thin and inferior enamel. Sir James Crichton-Browne thinks it well worthy of consideration whether the reintroduction into our diet of a supply of fluorine in some suitable natural form—and what form, he asks, can be more suitable than that in which it exists in the pellicles of our grain stuffs?—might not do something to fortify the teeth of the next generation.

—*Editorial in Dental Register.*

A SOLDER FOR ALUMINUM.—The soldering of two pieces of aluminum has heretofore been considered impracticable, but recent experiments show that it can be easily done by the use of chloride of silver as a fuse. The pieces of metal are placed together, and a finely-powered fused silver chloride is spread over the juncture. The solder is then melted by a blow pipe.

—*Rural Collaborator.*

ADMINISTERING ANESTHETICS.

In anesthesia, the first reliable sign is a fixed, unintelligent stare in the eyes, and I am in the habit of stopping the gas at this point, if the operation is very short, and the patient the victim of fatty degeneration of the heart. In ordinary cases, however, it is desirable to push the anesthesia further, till the respiratory pause supervene, or the movements of the eyes, fingers, and respiration become clonic. Neither this, nor the succeeding cyanosis, need give rise to the least alarm. When these symptoms are witnessed for the first time, there is, no doubt, something gruesome in the spectacle, but when asphyxia thus overtops anesthesia, you will notice the administrator watching the respiration and the color of the lips. If a rosy hue is stealing into the face of the patient, then all apprehension is at an end, the respiration resumes its usual rhythm, the eyes open first with a blank stare, and then with a look of consciousness. My usual practice is to keep the eyes and the ears closed till some act of consciousness manifests itself, then I say, successively, "Open your eyes;" "Open your mouth;" (to remove the gag) "Lean forward;" "Spit out the blood;" "See what you are doing;" "Wash your mouth with some water." These may seem trivial details, but patients understand them readily, and they indicate very fairly the grip of the mind during the gradual evolution to a full consciousness.

There is a strange condition that sometimes follows on the nitrous oxide anesthesia, but one that fortunately causes no anxiety. It is the persistence of that glassy, unintelligent stare of the eyes, and an anesthetic condition of the nerves, though all the other symptoms of the gas may have passed off and the face resumed its normal color. It is a condition in which I have been able to advise the surgeon to continue his operation to the extent, on one occasion, of eight extractions. On all such occasions the patient has emphatically repudiated the suggestion that the latter part of the operation was felt, and moreover, there was no reflex act evoked. The pathology of such cases I do not attempt to define, but as far as my observations go, they have only occurred in neurotic patients.

—J. Maughan, *Brit. Jour. Dent. Science.*

In case of fire somebody asserts that a wet silk handkerchief, tied without folding over the face, is a complete security against suffocation by smoke; it permits free breathing, and at the same time excludes the smoke from the lungs.

OUR COLLEGES AND STATE BOARDS.

Colleges should provide instruction, and they should be sustained. What should we do without schools? There is no other method. The boards do not afford education. It seems to me that the trouble is here. Too often there are appointed on these boards men who have received no curriculum of study whatever. They are unacquainted with the methods of education. They have no knowledge of the principles on which education is founded. Each school has its own method. They all attain the same end. Every instructor has a peculiar method of his own, by which he reaches the end gained. A board that has not gone through any curriculum of study may desire to ascertain how much an applicant knows. They are not acquainted with the methods of education. They simply ask certain questions. The student comes before them after having passed his examinations and pursued his studies some time before. The board, not having passed through the curriculum that he has, is not acquainted with the methods by which that information has been imparted. They ask strictly technical questions. How many of you could answer them? I cannot do it, because it has passed from my mind. Instead of being able to go through with the methods and educe from the student that which he really knows of the principles of practice, they ask questions which they have committed to memory. That is an injustice. Understand, I do not accuse the boards of doing anything of this kind. It may be the case, however. I believe in the appointment of a National Board of Examiners, whose duty shall be to examine the State Boards and see if they are qualified for their position.

Say what we will, very frequently these boards themselves have obtained the special legislation through their influence. They have procured the passage of a law which enabled them to sit in judgment on the schools. That, I believe, is one of the causes of friction. The schools object to being subject to the criticism and judgment of men who have not passed through the course of study which should qualify other men for such a position. In the first place, no one questions the honesty of the motives. It is said they are looking for money; that they demand a fee for conferring a diploma. What of it? In the State of New York they demand a fee of thirty dollars for the conferring of every degree. That is an honest charge. They should be compensated for the labor they do; but the point is that they both be made amenable to the same objection. The educational boards and the colleges must come together; they must harmonize, or there will be a disruption.

There must be an appeal to the courts, to see whether a dental diploma is good for anything or not. A mandamus might be asked for, which should compel a board to show why they should disqualify a student who holds a diploma from a reputable college. They would have a right to such a mandamus, and they could obtain it. You see there are these methods of friction. The office of the college is the more important, because it is the basis of education. Is it strange that a college which is organized for such a purpose should object to having judgment passed on it, a final irreversible judgment, by men who, in many cases, are not qualified? That, I believe, is the cause of complaint by the colleges. We know we have colleges conferring degrees where the qualifications of the student are defective, and if such colleges are to be unquestioned and their diplomas are to be acknowledged on the part of the community, what would become of our educational law? I believe the boards have an important office to fulfil. They should examine the methods of teaching. They would thus be enabled to carefully judge of the status of the college, and thus judge of the degree conferred by it.

I believe the State Boards of Examiners are all very well in their way, but I am convinced that no State Board should be allowed to examine a single man who does not come to them with a diploma from a reputable college to start with. I do not think it is fair to take a man who has been refused by the faculty of a dental college, and then let him practice, after an examination. A law ought to be made to change that in some way.

Outside and beyond the scientific questions pertaining to the art of dentistry, in my judgment the question of legislation is the most important one that addresses itself to the dentists to-day. I shall not speak of the ethical side of the case. I shall look, for a few moments, to the legal aspect of the question. Not a lawyer, but a man who claims to have a limited degree of common sense, I hold the right to my opinion on a question that I regard of great importance, not only to the dental profession, but to the people of the United States. One plea, we hear, is that the people demand it, and that the people were interested in the enforcement of the laws. If you put it on that plea, I shall certainly claim the question on the other side, because it is a fact that there is not a sufficient number of competent dentists in America to serve the American people; therefore, the discouragement of legitimate institutions of learning is contrary to their best interests, because they are not supplied with a sufficient number of men to fill the want.

—*International.*

Our Translations.

SINGULAR PATIENTS.

About six months ago a lady came to my office to have a root of a left upper molar removed, which, though not causing her pain, inconvenienced her. During the extraction the patient screamed out in such a manner that I exclaimed: "You should not allow yourself to be overcome by such slight pain." "Well, now," said she, "when one has to pull her teeth at one hundred and four, it does hurt indeed!" Astonished, I looked at this relic of the past century, and asked her if she did not make a mistake. She persisted, however, in saying that she was one hundred and four years old. She came in the morning in a carriage to Cologne, unaccompanied, and retired at a lively pace, much pleased with the extraction. This old lady had more than twenty sound teeth in her mouth.

A young Catholic priest living in my neighborhood came to me fifteen days ago complaining of toothache. An examination showed that there was inflammation of the first inferior molar at the alveola. The denture of this patient was so beautiful (he had all his thirty-two teeth evenly developed) that I hesitated to propose to him the extraction of one of them. Nevertheless I took my forceps. The tooth yielded at first, but then it seemed to have wedged itself so solidly between the second bicuspid and the second molar that it was impossible to move it. These cases are not rare among those living in the provinces on the Rhine, and I generally allow the patient to rest awhile, the strong pressure affecting the adjoining teeth, and the tooth usually comes out without difficulty. I went at the tooth again with much force, and then proposed to the patient to pull first the second bicuspid, which I thought was sound, and then the other tooth. Fortunately I had to do with a courageous and intelligent subject, who at once consented. I extracted the second bicuspid, which, to my great joy, proved carious, then the second molar, which had small thick roots. These roots were so grooved that they adapted themselves perfectly to the form of the small molar, which was also very hollow. This explained to me why the patient pretended that he thought I had taken three teeth at one time. During the twenty-three years of my practice this was the most difficult extraction that I had encountered.

COCAINE IN DENTISTRY.

BY DR. STEIN, TARNOPOL, AUSTRIA.

In 1862, Professor Schroff called attention to cocaine and recommended it as a quieting and sleep inducing remedy, but found no sympathy among the doctors. In 1879, Dr. V. Aureps, of St. Petersburg, made some more precise observations on the local anesthesia with cocaine, and had his experiences published. But the merit of having introduced cocaine in the medical practice, unquestionably belongs to Dr. Koller, of Vienna, who has proven in different eye operations, the safe action of local anesthesia with this remedy. It was not till the brilliant results from cocaine in surgery and ophthalmology had been well established, that attempts were made with it in dentistry, and in different operations in the mouth and teeth excellent successes achieved. The quantity, however, was not yet ascertained correctly, which circumstance led to some confusion, as well as to some very unpleasant results, and I believe it was due to serious mistakes in this direction that the cocaine was blamed and its use consequently diminished.

My own experiences of over seven years' use of this remarkable remedy has taught me that in cocaine we have an excellent remedy in all operations of the mouth, the teeth, the gums, and especially in tooth extraction, in which cases its effects are unexcelled even by the highly-praised laughing gas. Practice has also taught that large doses of cocaine are more harmful and of little use, as is also a concentrated solution. The thinner the solution and the more liquid is injected the better the result. It is also important to avoid giving cocaine to persons who are timid, nervous or excited, for the action on such persons is more intense. The painless killing of the nerves of painful carious teeth by the use of cocaine, as well as its priceless service in amputation and extraction of tooth nerves, and the painless extraction of teeth without narcose, by means of the same remedy, must be considered a boon to suffering humanity.

I have made up till now 10,000 extractions with cocaine, and have had 94-95 per cent. of good results, which could never be attained by using laughing gas. It is, therefore, to be regretted that, under these circumstances, there are dentists, and authors among them, who condemn cocaine because of some individual, unsatisfactory attempts. Whether the more general use of cocaine among the dental profession is bound to come, as Dr. Telschow believes it will, or its use will be discarded altogether, is a question

which time will decide. On my part I believe, with the learned doctor, that with the disappearance of prejudice against it the spread of that useful remedy is inevitable.

—*Correspondenz-Blatt für Zahnärzte.*

WHERE DOCTORS ARE MANUFACTURED.

The rush after titles, which is especially strong in Germany, has called forth, among others, a "doctor factory." That this fills a long-felt "want" is proven by the newspaper advertisements. A reporter seeing one of these "ads" of a Berlin "doctor manufacturer" thus describes his visit to this "benefactor of mankind:"

"We direct our steps toward the west side. In the prettiest place, in a palatial house, we are very cordially received, and soon brought to the great man whom Germany owes hundreds of doctors. He smiles gently and paternally after we explain our mission. 'You wish, then, to receive the doctor title, hm! then it is above all necessary for me to know particularly your curriculum vitae.' This done, the great man pushes his golden eye glasses thoughtfully up the forehead, places his hand, with a shining diamond, over his eyes, then showing his face again, he informs you that the thing requires, first, money; second, money; and third, money.

"After this question is settled, the helpful man talks rather cheerfully about the different ways in which the 'doctor industry' is carried on. 'The work is easy for persons having a little scientific training and are debarred from the normal achievement of the degree of doctor by some stroke of fate. The cost, however, is even here very great. The production of American doctors is the greatest. In Philadelphia and Nya (a small village on the Pacific Railroad), many hundreds of doctors are annually graduated through letters. The costs vary between eight hundred and twelve hundred marks. But the diplomas of the American universities have this unpleasant feature, that they abound in grammatical mistakes.'

"I ventured then the modest question, how many do annually press the doctor hat on their thinker forehead by his philanthropic assistance. 'That is uncertain,' was the reply, 'now that we have more of a literary movement in Germany the demand is greater; to-day, for instance, we have about thirty on Philadelphia. In times when fears of war, or disorders are prevalent, a remarkable falling off is at once noticeable. While now, when all is peace and quietness, I often receive daily from thirty to fifty letters with questions about 'promotions,' in those times all interest in the doctor title seems to be dead.'—*Zahnärztliches Wochenblatt.*

THE TEETH OF RUSSIAN SCHOOL CHILDREN.

The question of physical education of children and the preservation of health of school children has been warmly discussed lately on the pages of our periodicals. Society always listens eagerly to everything which competent persons have to say on this subject, because the health of children naturally interests greatly the parents. Unfortunately, up till now, all these talks have had very few practical results, and the health of children in general, and school children in particular, depends, as of yore, on good fortune.

The hygienic demands are materializing in the schools extremely slow. Even the system of medical assistance is very unsatisfactory, though every gymnasium has a physician. In the least satisfactory in our educational institutions is the dental help. There dentists can only assist in cases of acute attacks, and even then it is limited to some prescription calculated to temporarily stop or obtund pain; but they fail and cannot pay attention to the general condition of the teeth, which would include such measures as filling, cleaning, etc. Whereas it is apparent to every one, even a non-specialist, how important it is for man, and especially for children, to have the teeth in a satisfactory condition, as the general state of the body in a large measure depends on this.

The foregoing considerations can be confirmed by the results of the investigation in this direction made by me in accordance with a request from the directors of the Minsk Gymnasia during January, 1892.

I have examined five hundred and eighty-five scholars, of which number four hundred and thirty required dental assistance. During this examination I found, among others, caries, periostitis, ostitis, interesting cases of stomatitis, delayed and irregular eruptions of the permanent teeth in consequence of the neglect of the deciduous, tartar, there being cases where a whole row of teeth was covered with it so that the individual teeth could not be discerned.

Of course, only an insignificant portion of those requiring dental help, apply to the dentist, and these only in cases of acute diseases. The majority do not pay any attention to the constant injury of the teeth, partly because of traditional indifference to this subject, and partly on account of lack of means.

—Dr. B. Laufer, in *Zubovratchebniy Vestnik*.

[But there is improvement; and this is due partly to the influx of American dentists. Their influence is raising the profession in every way.—ED. ITEMS.]

Current Thoughts.

Mrs. L. W., of this place, had five molars left and four on the right side of the upper maxilla. They did not inconvenience her, and being sound were not removed.

W. H. Jackson, D.D.S., Ann Arbor, Mich.

In the treatment of an abscessed tooth you need to force the medicine through the abscess till it comes out on the outside. The tooth must not be filled till the abscess is burned out and new flesh has taken its place.

—B. Myers.

To bore rubber stoppers use a sharp-edged brass tube as thin as possible, and lubricated with soap and water. The hole will be a little smaller than the tube. It may be done by hand, or the tube may be chucked in a lathe. The tube is to be rotated and pressed against the stopper.

—Scientific American.

It is a pity science should have to search for antidotes for poisons used by man, for absolutely no other purpose than the gratification of an unnatural appetite or passion. The useless appetite for tobacco is not destroyed by antidotes. It must still continue to draw on the system in various ways to its injury.

—Paquin (Dr. Paul), in Bacteriological World

POISON OF THE TEETH.—Biting the nails is an exceedingly dangerous practice, as the biter never knows when to stop, and, at any moment, is liable to bite into "the quick" and cause blood poisoning. Even when the utmost care is taken of the teeth a poisonous secretion is apt to collect on them, and the entrance of a minute portion of this into the circulation may prove as certainly fatal as the pus on a surgeon's scalpel.

—Boston Herald.

EDITOR ITEMS:—The mixture of chlo. aconite advised by Dr. Chupein for relief of pain might in some cases prove dangerous, as the tinc. aconite rad. might be used, and a small quantity absorbed by some constitutions has been known to produce serious collapse.

I would advise instead chlo. 1 part and tinc. pyrethrum 3 parts, which I find excellent for pain in after extractions, and to give relief to teeth after long operations with gold fillings.

Genese.

I have used listerine for abscessed teeth because it is so harmless and does such good work. I instruct the patient in applying the listerine to keep the tooth dry, and having saturated a piece of cotton with the fluid, to force it in with another pellet of cotton rolled hard. I know that the success that I have had in treating teeth in this manner warrants me in continuing with my treatment.

—W. S. Twilley.

New medical and dental colleges almost invariably form their faculties of young and untried men, so far as teaching ability is concerned. It is well known that many good teachers are poor operators and *vice versa*. Just the opposite course is pursued in literary and classical schools—new schools continually offering inducements to get from older schools their most experienced and successful teachers.

—Ohio Journal.

Platinum in an amalgam causes quick setting and hardness, giving an alloy which contains it, many of the properties of a pure precipitated silver amalgam without the great discoloration of the latter. If an amalgam containing platinum is mixed soft, and not allowed to set rapidly, the peculiar advantage of this metal is entirely lost, and its presence is no advantage; if anything it is the reverse, for this reason it is possible to get good and bad results with the same alloy.

—Thomas Fletcher.

SHE WILL WAIT AWHILE.—One of the most remarkable cases on record of dependence in faith cure is that of a Dexter woman, who is reported as having become so infatuated with the Christian Scientist theory that she laid away on the shelf her false teeth that she had worn several years, declaring that she had faith that natural teeth would grow again. She has waited patiently for this result for six months, but, for some inexplicable reason, the new teeth yet delay their coming.

—Ohio Journal.

SHORT SHUT BITES.—I presume other dentists have been troubled, as I have been, in attempting to make a partial denture when the space between molars and bicuspids of one maxillary and the opposing gums of the other is *very narrow*.

If others have been annoyed and perplexed by such cases, let them try the following: Fill one-half of a Weston flask with batter of plaster and whiting. When batter has set to about the consistency of dough press into it artificial teeth as indicated. Remove teeth and fill pits with wax. Connect each pit with main canal by thin narrow line of wax. Rub the surface with dry whit-

ing, then adjust the other half of flask and fill. When the plaster is hard separate, remove wax. Melt sufficient of Weston's new metal as will fill the flask, and pour. When cold, remove the cusps and trim, spurring the under side and notching the edges so that the rubber will adhere to them firmly.

W. D. Tickner, Randolph, Wis.

CLEAR SHELLAC VARNISH.—To get an absolutely clear solution of shellac has long been a desideratum, not only with microscopists, but with all others who have occasional need of the medium for cements, etc. It may be prepared by first making an alcoholic solution of shellac in the usual way; a little benzole is then added, and the mixture well shaken. In the course of from twenty-four to forty-eight hours, the fluid will have separated into two distinct layers, an upper alcoholic stratum, perfectly clear, and of a dark red color, while under it is a turbid mixture containing the impurities. The clear solution may be decanted or drawn off with a pipette.

—National Druggist.

MANIPULATING CEMENTS.—Dr. Wassall says: "I think there are two secrets in the use of cements that will give us better success with them. First, to take just enough of the plastic material on the instrument to fill the cavity, and burnish it quickly before it sets, till it is exactly full, so that it will not need to be cut or ground down after it has hardened. This leaves a surface which has an outside gloss to it, of a condensed vitreous nature. The other is to give the cement more time in setting before the rubber-dam is removed. It was Dr. Harlan who told that he allowed the rubber to stay on, as an invariable rule, one hour, after making a cement filling, and I have found it of great value."

—Ohio Journal.

RIGGS' DISEASE.—Mrs. S. consulted me, suffering from pyorrhea alveolaris. The right side of her face was much swollen and very painful, teeth loose, pus exuding from around them, and gums bleeding profusely at the least irritation. The patient was in an extremely anemic condition. The patient had been under treatment a short time before for a uterine trouble, but had been dismissed cured, but was still weak and anemic.

The tartar was carefully removed from around the necks of the teeth. The pockets were carefully injected with bichloride of mercury (1-1,000), and the teeth ligatured with platina wire. I prescribed a mouth wash of permang. potash, to be used freely several

times daily. I next prescribed syrup hypophosphites in table-spoonful doses, three times daily, to be taken before meals, and insisted on the patient taking out-door exercise. The pus pockets were injected three times a week with bichloride. In a week I removed the ligatures, and the teeth were firm. One week later her gums had ceased bleeding and she had no pain. At the end of the third week I dismissed her as cured. Two months later there was no recurrence.

B. D. Friedenwald, Baltimore.

Prof. Roberts Austen has drawn attention to the fact that the properties of gold are changed in a most remarkable manner by alloying it with small percentages of other metals, and he lately exhibited a new series of alloys of this metal with aluminum. One of these alloys, containing 20 per cent. of aluminum, forms an exception to the usual rule that the melting point of an alloy is lower than that of either of its constituents. This alloy has a fusing point above that of gold, the most infusible of its constituents. Curiously enough, the alloy with 10 per cent. of aluminum follows the ordinary rule. These alloys have the most brilliant colors. The 20 per cent. alloy is a brilliant ruby in tint, while those containing greater percentages of aluminum are purple in hue.

—Office and Laboratory.

I question very much the statement that the excessive use of tobacco will help one mentally or physically. We have all observed in those people who have used tobacco for years, the receding of the gums and the softening of the tooth about its neck. I can speak on this subject somewhat from experience; I used tobacco myself from childhood up to a little more than a year ago. I have chewed and I have smoked, and I am satisfied that my teeth were injured from the use of tobacco, not only in chewing from the grit which it contained, causing mechanical abrasion, but in that peculiar condition, which it produces of congesting the mucous surfaces, which results in a disorder of the subcutaneous glands, causing them to give off a diseased secretion which destroys the tooth. I don't know that I have ever observed any bad effects of nicotine or the product of combustion of smoking, on the enamel of the teeth other than to stain it; tobacco colors the teeth yellow, but the worst results from the use of tobacco come from the smoking of cigarettes. The combustion of the paper, especially the cheaper qualities of paper, I consider very deleterious. The condition of the mucous membrane of the mouths in cigarette smokers, gives us all the evidence of its being very injurious. —*E. D. Swain.*

Dr. M. D. Lederman, of New York, finds the following mode of treatment very beneficial during the congestive stage of an acute nasal catarrh. The nasal chambers are sprayed with any of the antiseptic solutions, Seiler's preferred, till they are sufficiently cleansed, and then the following solution is used :

- R. Cocaine.....
 Menthol.....āā gr. xx.
 Benzoinol.....3 ij.
- M. Ft. solution.

The feeling of fullness in the nose, associated with the dull frontal headache, is no doubt the result of extreme congestion. For the relief of these symptoms, cocaine has been used for a considerable period, but it has been found that its effect soon passes off, and the patient is left in the same uncomfortable position as before. To obviate this, menthol is added to the solution. Menthol is a local anesthetic, and in combination with cocaine, it keeps up the local depletion and leaves a pleasant coolness in the nasal chambers, enabling the patient to breath through the natural passages. Benzoinol is used in this solution as the menstruum, on account of its bland and unirritating qualities, and freedom from unpleasant odor.

—*Brooklyn Medical Journal.*

IDENTIFICATION BY MEANS OF THE TEETH.—M. Godon communicated the following fact to the Odontological Society of Paris, June 7th, 1887 :

“ One of his clients took part in 1885 in a caravan of Europeans, which traveled through a part of South America, partly on a scientific and partly commercial mission. Twenty members of the caravan, among them Mrs. X., were sent ahead to look for water. Attacked by a band of Indians all were killed. The mutilated and stripped bodies which were left on the place became the prey of wild beasts. A short time after a missionary crossed the little frequented region and found the remainder of the unfortunate victims. While he was looking at one of the heads he found on the lower jaw a few teeth filled with gold and a bridge with two artificial teeth mounted on a plate of gold and caoutchouc. He brought the head to the nearest consulate. The piece was recognized by a friend of the lady and sent to her family. By this means it was possible to establish the identity of the body and declare Mrs. X. dead.” Many such instances occur, showing that more pains should be taken by the dentists to preserve charts, etc.

—*Oestreich-Ungarische Vierteljahrschrift für Zahnheilkunde.*

Monthly Gossip.

DR. WM. E. BLAKENEY.

THE COMING MAN seldom gets there.

A TEASPOONFUL of powdered alum sprinkled in a barrel of water will precipitate all impure matter.

DR. TRUMAN believes inflammation and pus-formation may be found in cases where there is no micro organisms, but that they are limited.

MANY CASES of atrophied teeth are the result of severe whooping-cough. The enamel will be found soft and the dentine often greenish color.

PROXIMAL FILLINGS should be built out so full that after removing the excess the exact contour would be restored, with the surface of the gold sufficiently dense to permit the highest polish.

ECROSIS, or death of jaw bone, is similar in its first stages to periodontitis, but later there is a vast difference; we find the gum thickened, tumid and very red, with pus oozing from the borders and recession around the teeth.

AN UNERUPTED tooth is indicated by a hard tumor-like growth over the alveolar ridge, frequently, if on the upper jaw, extending along the plane of the palate bone, on the surface of the maxilla, and in the shape of corresponding tooth.

POWDERED SUBSULPHATE of iron used on pellets of cotton saturated with sandarac varnish, followed by the use of the compress so adjusted as to act directly on the mouth of the bleeding vessel is generally effective in alveolar hemorrhage.

A MAN, forty-four years of age, died at Bellevue Hospital, July 20th, after an injection of cocaine given before a painful operation. The autopsy showed that all internal organs were congested, which led to the belief that death was due to cocaine. This is the first case of the kind in this city.

"A FUNGUS growth on the pulp," says Dr. J. R. Bell, "is like a small vascular tumor, but there are exceptions, when it may be found as large as a navy bean. Its diagnosis is of little consequence, as the entire pulp has to be destroyed,* and usually that, together with the filling of the tooth, is simple."

THE FOLLOWING are classed among the more powerful styptics for local application: Nitrate of silver, tannic acid. sulphate of

* Is not the nerve always dead before this "fungous growth" comes?—ED. ITEMS.

iron, perchloride of iron, persulphate of iron, gallic acid, tincture of ergot. Care should be taken so that no agent is employed as a styptic which will in any way destroy the tissue.

DR. GRADLE is confident that in two years inoculation will be the remedy for cholera, and he is corroborated by Dr. Maurer, President of the San Francisco Bacteriological Society, who is of opinion that "inoculation based on a thorough bacteriological knowledge will be the scientific treatment of the future."

AT THE late Oriental Congress, in the City of London, an interesting document was submitted by Rev. Professor Mechler, Chaplain of the British Embassy at Vienna, and a distinguished Orientalist. It is a papyrus manuscript, discovered a few months ago in Egypt, supposed by some to be the oldest copy extant of portions of the Old Testament books of Zachariah and Malachi.

IT IS the opinion of Dr. S. J. Spence that some lines of depression lying near the gum line on proximal surfaces of the teeth, are the cause of much secondary decay, when the filling inserted is not properly cut down with knife blade instruments to the surface of the tooth. He claims a finishing tape or disk passes over the depression and leaves a projecting edge on the filling at that point.

THE FOREMOST writers on antiseptics now advocate abolishing, as far as possible, all escharotics and coagulants in the treatment of septic conditions of root canals. No antiseptic in use by the dentist answers these questions so well as peroxide of hydrogen and the essential oils. They are non-escharotic, non-toxic, yet antiseptic and stimulant; the manner of their use is simple and positive.

DR. H. J. MCKELLOP, of St. Louis, says that "Dentists ought to mingle more with the reputable men of their communities—the merchants, lawyers and doctors, and thus raise up dentistry in the eyes of the public." I can assure the doctor that dentists hereabouts are perfectly willing to "mingle" with the business and professional gentlemen he mentions, providing they are respectable, and occupy a desirable social position in society.

AN INSTRUCTIVE PAPER, entitled "Syphilitic Diseases of the Nose," by C. G. Darling, M.D., is published in the September issue of the *Dental Register*. "Specific Catarrh," the doctor says, "may begin in direct contamination of the nasal mucous membrane with syphilitic matter carried to it by means of instruments, or the uncleanly habit of picking the nose. It may be present in the secondary stage, while the nose is a common seat of tertiary lesions; it may also be the result of heredity."

DR. J. R. OWEN is of the opinion that crown- and bridge-work is being overdone. "Of nine cases where it is done," he says, "eight are failures. To band two teeth to replace one was not wise, as it was only a question of time when the banded would be destroyed by decay under the bands. Gold crowns are excellent substitutes when the natural crown is gone, but to place them on teeth that could be filled, in my judgment is bad practice."

THE LOCAL USE of cocaine is not unattended by danger, and this is the case with injections made with the alkaloid of the coca leaf, even when the doses do not exceed five centigrams. M. Schleich, of Berlin, has, for this reason, been experimenting with a view to determine the weakest solution of cocaine capable of producing an anesthetic effect in intradermic injections, and has found that a solution of one in five thousand still gives a sufficient local anesthesia.

DR. G. H. WILSON says asphyxia is the one condition we have to guard against in the administration of gas. It is quite generally conceded that gas is a true anesthetic and produces its effects by direct action on the nerve centers. That super-oxidation does not take place at all, and that asphyxia is only incidental; but where there is a good respiratory organization and the nervous system is not unfavorably acted on by outside influences, there will be sufficient oxygen retained in the system to supply the wants of nature, and nature will tolerate the presence of the inert gas.

PENNSYLVANIA does not intend to be behind her sister States in contributions to the World's Columbian Exposition. Among the interesting objects contributed by Philadelphia, according to the editor of the *Dental Register*, are: the chair occupied by Thomas Jefferson when writing the Declaration of Independence; the table on which it was signed; the silver inkstand used on that occasion; Thomas Jefferson's sword; chair of memorial woods, including parts of Columbus' house in Spain; bell rung at Valley Forge when Washington occupied that place with his army; sofa belonging to George Washington; bench made from pew in old Christ Church occupied by Washington and Lafayette; punch bowl used by Washington and other revolutionary officers; first lightning rod invented by Ben. Franklin; electrical machine invented by Franklin; fans used by Franklin at the court of France when he was minister there; clocks of Benjamin Franklin, William Penn and Oliver Cromwell, running and keeping good time; Thomas Jefferson's thermometer; Pocahontas' necklace; surveying instrument used by William Penn in laying out the city of Philadelphia; the famous Liberty Bell, etc.

Our Question Box.

WITH REPLIES FROM OUR BEST AUTHORITIES ON DENTISTRY.

[Address all questions for this department to DR. E. N. FRANCIS, Uvalde, Texas.]

Question 53. *I made a double set of teeth for a gentleman, which fit perfectly, the occlusion is correct, but he can not articulate the final "s" of a word without a decided whistle. Wherein lies the fault? The teeth are in rubber.*

This whistle may be caused by too much space between the upper incisors, too long under teeth, or insufficient depth of arch caused by a thick plate. The first may be tested by filling any existing spaces between teeth with wax. If no improvement, trim down the plate and leave a prominent rugae for the air to contend with in passing between the plate and tongue. If the plate is not of sufficient thickness to allow of trimming, drop melted wax on the plate in ridges, and form into proper shape for a test.

Question 54. *A miss, aged sixteen, when two and a half years old, had acute rheumatic fever; was under treatment of physicians for seventy days. 'Twas then found that she was unable to open her jaws more than one-quarter inch, which continues. Her lower maxilla is not so large as the upper, either in length or breadth. Her anterior teeth are badly decayed. She is a brunette, of a sanguine, nervous temperament. What can be done to allow freer use of jaws? If there is no way to remove the rigidity, how can I do needed dental work?*

It will be impossible to answer, or obtain answers to your question without putting it more definitely.

We will cite a case that may be of some benefit. A patient, aged forty-five years, was salivated when young. The masseter muscles seemed to form new attachments anteriorly. The contraction was so great it was impossible to insert a knife blade between his teeth. To extract badly decayed posterior teeth the muscles were cut (from inside of cheek), and teeth were easily removed. Now your case may be from contraction of muscles, or from a deposit, or from enlargement at the condyle, or of the sigmoid notch. Make examination, and send statement of diagnosis, and we will be pleased to obtain answers to your question.

Question 55. *Does Dawson's white alloy make fillings that do not discolor in mouth of patient?*

If properly used Dawson's may be considered a non-tarnishing alloy.

Question 56. *Patient has two fillings made from the same wafer of Welch's gold and platina alloy. One filling turned dark; the other remained bright. What is the cause?*

In burnishing amalgam fillings we often wound (it may have been previously done in applying the dam) the gum and burnish blood over the fill-

ing. This will, in many cases, discolor gold as well as amalgam. This may be the cause of your trouble. If so, polish thoroughly with powder, burnish again, and you will have no further trouble, unless there is an unnatural discharge from the gums.

Question 57. *What is the best way to prevent sections cracking in vulcanizing?*

In a practice of many years we have never experienced a trouble of this kind, having often broken three bolts in closing flask, so that our amenity from this trouble is not from light pressure. In using bolts, or direct pressure in closing flasks, the plaster supporting the teeth should be allowed sufficient time to harden, blocks should be well supported by allowing plaster to extend above them, and pressure should not be applied till rubber is thoroughly softened by heat. The automatic flask press will overcome your trouble if teeth are properly imbedded.

Question 58. *What make of teeth do you consider strongest and most natural for general use? Can you point out some faults that will be useful in selecting teeth?*

Guard against small pins and those so near the joints (in gum sections) that it necessitates grinding one pin nearly off in making a joint for proper articulation of the bicuspid. The greatest fault with most teeth is the insufficient slant of the bicuspid to bring them back of the cuspids without tipping the block. To overcome the prominence of the bicuspid we must grind the gum enamel from a tipped block at the anterior point; this necessitates a thorough polishing of gum portion, and is often unsatisfactory.

All manufacturers have a large number of moulds from which to make your selections. Each set requires peculiarities of strength, color and form, often necessitating a selection from two or three manufactories before obtaining the one adapted to the case in hand.

Question 59. *Three years ago a patient had a large crown-cavity filled in a lower first molar, which has been painful ever since. For some time there has been at the root an enlargement of considerable size. I removed the filling, opened both root canals, but found no discharge. The enlargement continues hard and firm. Three weeks treatment has produced little change. What shall I do?*

This may be caused by exostosis, or by a pus cavity formed at some time, which has forced the alveola out as described. If the patient still suffers, find out the cause by a puncture or an opening. Till then it will be difficult to suggest definite treatment. The pain from pus, or from acute inflammation, is easy of diagnosis; try the effects of percussion, observe the condition of posterior teeth, and of bicuspid.

Question 60. *November, 1889, a young lady, aged fourteen, had an excessive growth of gums, especially around the lower front teeth. I used lance and cautery freely. But still the gums persist in excessive growth. I have had to remove portions two or three times. What can I do? She uses listerine freely, and it has the best effect of anything, but not satisfactory.*

Remove all tartar and roughness from the necks and roots; put patient on change of diet, and follow treatment as given under questions 40 and 42, September, 1892. If this is not successful we will give constitutional treatment, with a list of more active local applications.

Question 61. *How long will nitrous oxide remain pure as sent out by the manufacturers in cylinders, and be safe to use?*

While under pressure in cylinders it will remain pure indefinitely. No change taking place till liberated.

Question 62. *Boy, nine years of age, has excessive prominence of upper incisors. The lower incisors rest on the gum of neck of the upper. Posterior teeth are short; centrals very long and large. How and when can I best remedy the evil?*

We can not give directions without knowing more of the case. No general rules can be given. We advise you to read Evans' Crown- and Bridge-work, last edition. This will give you ideas useful in constructing an appliance for this and many other cases.

The Committee on State and Local Organizations of the American Dental Association, sends out the following ten questions pertaining to dentistry to all local dental societies, and to secure condensed reports of the meetings of local societies:

No. 1. Should Examining Boards have power to grant certificates of qualification to undergraduates?

No. 2. Should immediate root fillings be practiced while purulent conditions exist at the apex?

No. 3. What are the best materials to enter into the composition of temporary fillings for a minimum of three years?

No. 4. What are the best methods for obtunding sensibility of the dentine by either local or general means—should arsenic ever be used?

No. 5. What are the best forms of partial lower dentures, and the methods for constructing them?

No. 6. Corrective dentistry. Its present status. What are the simplest and most universally applicable forms of apparatus and most efficient retaining fixtures?

No. 7. To what extent and under what conditions is the collar crown a cause of pericemental inflammation?

No. 8. In cases of congested pulp should the arsenical application be made without preliminary treatment?

No. 9. What are the advantages and disadvantages of the use of the matrix. 1. With gold. 2. With plastics?

No. 10. The etiology of pus formation?

For Our Patients.

OF COURSE PHYSICIANS KNOW.

A little girl came into my office thirty years ago to have a tooth extracted.

"Why, my dear child," said I, "this is a permanent tooth."

"Oh, no! My father says it is a baby tooth. He knows, for he is a doctor, and he says you must take it out; it pains me very much."

"I'll stop the toothache," I replied, "and send a note to your father, which no doubt will make it all right. I would be sorry to take out a permanent tooth for a temporary one."

Next day she returned with a note reading something like this:

"I am a little ashamed you should show such ignorance about my child's tooth. I have not been a doctor twenty years without being able to distinguish between a first and a second tooth, and I should think you were old enough to know by this time. You ask me to come over and examine it with you. I have not time to teach you such a rudimentary lesson. Take the tooth out and send the child home."

"Martha," said I, "you don't care for the little trouble of returning home again before I take your tooth out, do you? Your father and I both want to do what is for the best."

"All right," said she, "but I know it will make my father awful mad."

"Never mind, I am not going to take that tooth out without his being present; for I know it ought not to come out without doing my best to save it."

Back she came, and he with her in answer to my second note.

"I am provoked that you should take me away from important work on such a foolish errand. Now, let me settle this whole dispute by a single question: Has this tooth had a predecessor? I know it has not."

"So do I."

"Then how can you say it is a second tooth?"

"I do not say so; it is a first tooth."

"Then why are you not taking it out without so much ado?"

"Because it is a permanent tooth."

"How can it be a permanent tooth and a first tooth, also? Are you a fool?"

"How many teeth have successors?"

"The whole set, of course."

"So that the whole set of permanent teeth have predecessors?"

"Of course."

"Then, of course, each set has the same number of teeth. And, opening to a page in my anatomy, I drew a line between the space on the jaw occupied by the ten having predecessors, and the six additional which had none, including the six-year molar under dispute."

"Doc, you have got me," said he; "I give it up. I was the fool after all. Save that tooth if you can, and do all you can to put the others in a good condition."

Sixteen years afterward the daughter came in with a fine young man, she introduced as her husband.

"I wish you would see," said he, "if my wife has anything should be done."

Looking over her teeth, I found she still retained her full set. Even the one I had treated for an exposed nerve when she was but a child, was still alive and good.

"Nothing has been done with it since," she remarked.

"I wouldn't take a thousand dollars for it," said her husband, though it was all built up with amalgam.

REMOVING AN UNERUPTED THIRD MOLAR.—Mrs. C. was treated by her physician two days before I was called in consultation. Her condition resembled lock-jaw. She had tetanic contraction of the muscles of her lower jaw. The jaws were firmly locked, and had to be forced open in order to make an examination. Chloroform failed to relax the muscles. The patient had considerable pain, but could not locate it. An incision was made over the right lower wisdom tooth. On probing I could distinctly feel that the tooth had not erupted. By means of a pair of bone forceps the bone was cut through, care being taken not to sever the inferior dental artery. The bone was cut away with a circular engine saw. The tooth was then extracted and was found decayed. Patient was given five-grain doses of antipyrin, and ten grains of salol every four hours for one day. The first day after the operation the patient opened her mouth with little effort. The wound healed rapidly, and up to this time, three months after the operation, she has no trouble.

B. D. Friedenwald, Baltimore.

Items.

There are many shallow decays in teeth which do not call for filling. Cutting away the decay and polishing the surface is quite sufficient.

Dr. C. E. Hale, of St. Paul, in *American Journal*, says he has succeeded in avoiding every vestige of pain in filling sensitive teeth, with complete safety to the pulp.

Covering a freshly-exposed pulp with Canada balsam, on a bit of writing paper, is good practice. Then fill the cavity nearly full of oxyphosphate, and finish with gold or alloy.

The twenty-seventh annual meeting of the Missouri State Dental Association was held at Clinton, Mo., July 5th to 8th, inclusive. There were twenty-six new members admitted and eleven papers read.

Thomas Fletcher, of England, says his method of manipulating amalgam is to pack as dry as possible, and to burnish or mallet the surface with a layer of tin foil over it, to absorb the mercury which rises to the surface.

A dentist has no excuse for an ungentlemanly appearance. If he is not neat, clean, and gentle, and, in general demeanor, intelligent, professional, and suave, a prejudice is at once formed that takes much good work to counteract.

A resolution was laid over from last year to this, under the rules, by the National Association of Dental Examiners, requiring four years' attendance at dental colleges before graduation. When called up at their recent session it was defeated.

Softening of the enamel around the margin of the gum does not call for so much scraping and cutting as rubbing down with Arcansis oil stone or some other finely gritted point in the engine. Bring the roughened surface to a hard polished surface.

We cannot avoid extracting some teeth, but it is an assured fact that the more we try to save badly decayed teeth, the more frequently we succeed. Even aching teeth, under the treatment of a determined tooth saver, yield to intelligent care oftener than most dentists suspect possible.

Some dentists are too much afraid of leaving decayed dentine in the bottom of deep-seated cavities. It is much better to allow these laminations to remain, which cover a nearly exposed pulp, than to remove them. Tan them with a little creasote or tannin made into a paste, with equal parts of creasote and oil of cloves, and fill.

If a tooth with a deep seated cavity aches, it is a pretty sure evidence that the pulp is partly exposed, but not that the tooth should be abandoned to the forceps. Place in it a little tannin made into a paste with equal parts of oil of cloves and creasote, and then fill with oxyphosphate. Generally the condition of the pulp will be normal. In a month cut out a small portion of the filling and plate with metal.

There were thirty-one hundred students in the dental colleges of the United States last year. Fourteen hundred and fifty were graduated. We have now a greater number of dentists to the population than ever. Though there are twenty-six colleges now represented in the National Association of Dental Examiners, none lack their usual patronage, and some are much crowded. It was thought the extension of time for graduation from two years to three would decrease attendance, but it seems to be a stimulous.

The following concerning medicine in vegetables may be useful to some, if not new to many: Spinach has a direct effect on the kidneys; a common dandelion, used as greens, is excellent for the same trouble; asparagus purges the blood; celery acts admirably on the nervous system, and is a cure for rheumatism and neuralgia; tomatoes act on the liver; beets and turnips are excellent appetizers; lettuce and cucumbers are cooling in their effects on the system; onions, garlic, leeks, olives and shallots stimulate the circulatory system, and the consequent increase in the saliva and gastric juices, promoting digestion, and are an excellent diuretic, and eaten raw are a remedy for insomnia. A soup made of onions is regarded by the French as an excellent restorative in debility of the digestive organs.

Notices.

The Women's Dental Association of the United States was organized in Philadelphia March 19th, 1892.

The officers of the Association are :

Mary H. Stillwell, President.

Anna K. Lettenmier, Vice-President.

Maria Lasser, Treasurer.

Eliza Yerkes, Recording Secretary, 4004 Chestnut street, Philadelphia.

A. T. Focht, Corresponding Secretary.

Elizabeth A. Davis, Bertha M. Jarrett and Hannah M. Miller, Executive Committee.

ADENOID GROWTHS, MOUTH-BREATHING, AND THUMB-SUCKING, in their relation to the Deformities of the Jaws and Irregular Teeth, by Norman W. Kingsley, D.D.S., 115 Madison Avenue, New York, is the full text of a pamphlet just received from the S. S. White Company, which appeared in the *Dental Cosmos* of January, February, May and June, 1892.

It is not enough to know that this comes from Dr. Kingsley. Nothing comes from his pen that is not good. But this is probably the presentation of his best work, and the manner of its presentation is a credit to both author and publisher. The process of the reduction of these deformities are presented so clearly by beautiful illustrations, and in such detail of description, that we advise every dentist to send for a copy and master the subject.

Dr. A. H. Brown, of Colombo, Ceylon, has placed before his patrons quite an interesting little pamphlet on the "Care and Treatment of the Teeth." This may be advertising, but it is just such advertising that in my practice I found paid me and was thankfully received by the public.

The American College of Dental Surgery has thoroughly reorganized its faculty, and is now in full accord and good standing in the National Association of Dental Faculties. There is every prospect that it will speedily become one of our popular institutions. In fact, it is already receiving marked attention.

Editorial.

TRY AGAIN.

We do not succeed so much by our talents as by our perseverance. It is the man who incessantly digs, digs, digs, that succeeds,—digs whether he sees the gold or only its indications; digs when others are discouraged; follows the lead to the mine when his competitors leave it in disgust; still digs in darkness and light, in cold and heat, in rain and shine, in hunger and plenty; digs with brain and muscle, with patience and spirit, with faith and wisdom,—knowing no discouragements, no impossibilities, no failure.

We have all seen such men and women. They may not be bright, but they are persistent; they may not be learned, but they are clever; they may not be attractive, but they mind their own business and push on. Even if they are obtuse and blundering and full of errors, and so often at fault and ridiculous in many of their plans and expectations, as to be the laughing-stock of the shrewd and exact,—yet when they fall they rise again; when they are discomfited in one direction they begin in another; when they are utterly baffled they are not discouraged. Discomfiture rallies reserved forces; failure makes them more persistent; and obstacles makes them more determined.

Thus, while many of their smart competitors laugh at their follies and ridicule their weaknesses, they sit down by the wayside and find their own experience a failure, while their “inferiors” distance them in the race.

Young man, if you would have good cheer and bounding courage, do not be discouraged by the past. Make failures object lessons and try again. Learn of the spider that is obliged to fall back times innumerable, but climbs till it gets there.

“If at first you don't succeed,

Try, try again.

All that other folks can do,

Why with patience may not you?

Only keep this rule in view,

Try, try again.”

There are dentists here and there all over the country who can do some kind of work better than most others can do it. Some have ways of doing work that give them superior advantage over others, or ideas that would be of much worth if generally known.

But to make them known is the trouble; they could, perhaps, tell it, but cannot write it, or cannot spare the necessary time to write it well, or they cannot realize that what is so common with them may be a novelty with others, or they neglect what they might say till the inclination of saying it fades away.

These are some of the reasons we have no more items of interest. Yet we are thankful we receive so many, in spite of these reasons for their suppression; for these "little things" are certainly appreciated by the mass of readers. Finished and labored articles, that take days to prepare, are good, and yet they are not so generally read, nor generally so useful to common workmen as short articles on one practical idea.

The Medical World is largely made up of short articles of from ten to fifty lines, each on some one useful, live thought, or remedy, or practice, that is of special significance to the busy practitioner. By this means *The Medical World*, of Philadelphia, has become a household word in the office of most physicians.

This is what we have tried to make the ITEMS OF INTEREST. We could do better if our dental patrons would do as well for us as physicians do for *The Medical World*.

Friends, many of you, if you looked about you or within you, would find something that would be of much interest to others. See if you cannot pass it in for us to pass out. Others, in turn, will give something of value to you.

The present number of the ITEMS and part of the last, were prepared under somewhat trying circumstances. September 12th, the editor was thrown out of a carriage, splintering the fibula, throwing out of place the tibia, and badly dislocating the ankle of the left leg. His right hand was so badly wrenched it is difficult to hold a pen. Two of his grand-children were also seriously injured. All, however, are now doing well.

Strict attention to business is of cardinal importance. If we do not take care of our business, our business will not take care of us. We know a good dentist who has to be so often called from the street, or other place of resort, to attend to his patients, that many of his best patrons have forsaken him. Some find a billiard, or dice, or card table too handy by; others are forever going a fishing or hunting, or riding fast horses; while others have too many side shows—anywhere but where they should be. Even if important outside business takes them away, they cannot expect to attend to it without prejudice to their professional duties. Generally, a man must be of one business, and make that so absorbing that it shall be his pleasure to succeed. If he has side shows, or amusements, or even recreation, they must be very subordinate to his legitimate business.

Though you cannot have your own way in everything, why keep growling? Whining will not better your condition. You act as though it was very important that you have your place and say on all occasions. But you are not so important to the world that it cannot do without you; it will continue to move on, though you drop out. But with a cheerful, helpful disposition, there is no reason why you should not jog along with it most successfully. Your growling, and snarling, and fault-finding comes largely from your self-conceit and selfishness. You feel your self-importance too much by half. Take a little lower seat and you will look better. Your fellows are sick of your silly, over-weaning self-adulations and sycophant vanity. Get right down to sober-thinking, sensible living and hard work, and you will be appreciated. Modesty becomes the wisest, and a characteristic of wisdom is modesty. It is the shallow-brained egotist who is continually complaining that he is not appreciated.

Without a doubt, the finest and greatest triumph in the science of dentistry is the construction and reconstruction of the teeth of the human mouth by artificial means without plates. It is the triumph of the nineteenth century in dentistry, and you cannot be surprised to find so many failures when there are so many at it.

The materials and instruments now within the reach of the dentist are far superior to those provided twenty-five years ago, and those then in use were much better than those procurable even ten years previously. There has not been any five years within the last forty that decided advancement has not been made in all departments of our calling. A glance at its literature during this period is equally encouraging, and we have advanced quite as rapidly in our dignity and influence. From scattered individuals with no bond of cohesion, and no mutual sympathy, we have become an organized force; from jealous, repellent factions, caring only for our individual advantage, we have become a brotherhood; from isolated associations and local clubs, without general object or specific order, we have become a dignified, learned, influential and well supported body.

The Pennsylvania College of Dental Surgery has purchased a fine property containing over 7,000 square feet, on which one of the most convenient and commodious college buildings will be erected that has ever been devoted to dentistry.

Now, if this college will inaugurate a new custom of moral and social discipline among its students, what a sphere of usefulness and distinction is before it. Perhaps it has done so already. We have not been in it for some years.

This eternal spitting and chewing, and smoking, that makes every room in some colleges vile with the fumes and stench and puddles of the nasty, poisonous, heathenish weed, is abominable. Of course, such a low habit contributes to slang and vulgarity and loose morals. I have heard more than one young man say he was pretty decent till he went to college. What a shame on our colleges! Let these young men understand that these things do not constitute the standard of a gentleman, and they will look around for a standard that is higher. How can we expect a clean profession without clean colleges? Perhaps there is a college that does not come under this ban; if so, we should like to hear from it.